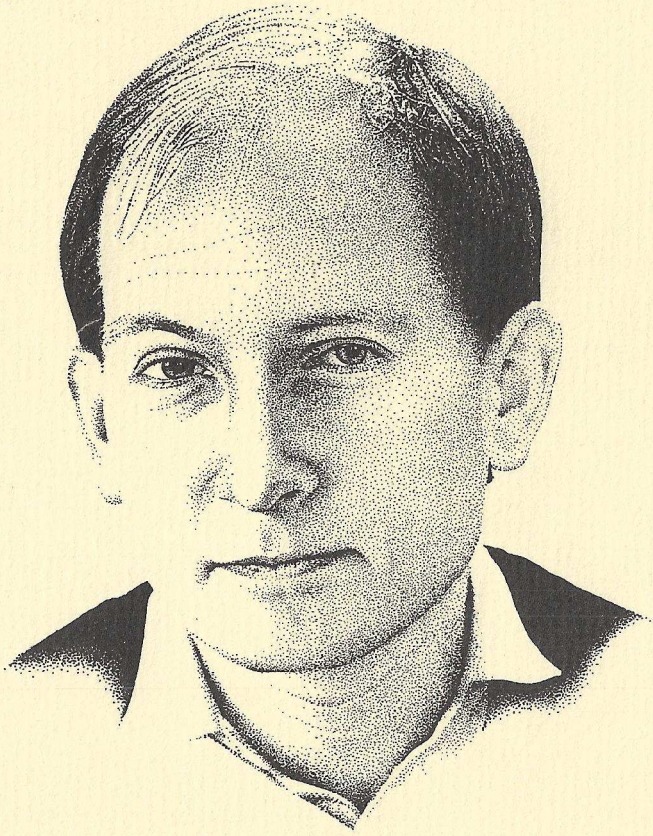
NOVACON 23



Programme Book

NOVACON 23

Guest of Honour	Stephen Baxter
Chair	Carol Morton
Committee	
Treasurer	Richard Standage
Membership	Bernie Evans
Ops	Helena Bowles
Programme	Carol Morton
Publications	Tony Morton
Staff	
Artshow	John Harrold
Bookroom	Chris Murphy
Hotel Liason	Martin Tudor

Friday November 5 to Sunday November 8 1993
Royal Angus Thistle Hotel, Birmingham

WOULD YOU LIKE TO MEET:

Brian Aldiss, Stephen Baxter, Iain Banks, Greg Bear, David Brin, John Brunner, Ramsey Campbell, C J Cherryh, Dr Jack Cohen, Storm Constantine, Louise Cooper, Neil Gaiman, Anne Gay, David Gemmell, Simon Green, Colin Greenland, Joe Haldeman, Tom Holt, David A Hardy, Harry Harrison, Mat Irvine, Gwyneth Jones, Graham Joyce, Garry Kilworth, Stephen Lawhead, Paul McAuley, Anne McCaffrey, "Grant Naylor", Terry Pratchett, Robert Rankin, Kim Stanley Robinson, Bob Shaw, Dan Simmons, Ian Stewart, Sheri S Tepper, Patrick Tilley, Freda Warrington, Ian Watson, Tad Williams, David Wingrove and "Jonathan Wylie" ?

If you were a member of the Birmingham Science Fiction Group you could have done - all of the above have spoken to the Group, at least once, during the last seven years.

The BSFG has been meeting on the third Friday of every month for over twenty years and, as well as organising Novacon each year and holding meetings at least once a month, produces a monthly newsletter featuring book reviews, local and national genre news and convention reports.

For further information call: Mick Evans on (021) 558 0997.

The Birmingham Science Fiction Group meets at 7.45pm on the third Friday of each month (unless otherwise notified) in the upstairs Function Room of the Australian Bar, corner of Hurst Street and Bromsgrove Street in Birmingham city centre. The annual subscription rates (which include twelve copies of the newsletter and reduced price entry to meetings) are £9.00 per person, or £12.00 for two members at the same address. Cheques etc. payable to "the Birmingham Science Fiction Group", should be sent to the treasurer Richard Standage, c/o 121 Cape Hill, Smethwick, Warley, West Midlands, B66 4SH.

CONTENTS

Chairman (In) Piece(s)	Carol Morton	4
Programme	Carol Morton	5
Film Notes	Steve Green	7
Committee Biographies		9
Science versus Fiction : The Dilemma of Hard SF	Stephen Baxter	14
The Hard Stuff	Al Johnston	19
Stephen Baxter : Bibliography		21
Editing Stephen Baxter	His Desk Editor	23
Fandom and the RNIB	Roger Robinson	25
Programme/Film Notes		27
Bad Influence		31
Science Fiction Foundation and The Friends of Foundation	Roger Robinson	33
Extracts from THE COLLAPSE OF CHAOS	Jack Cohen & Ian Stewart	35
The GCSE in Science Fiction	Vernon Brown	41
An Interview with Bhen	AI	46
The Nova Awards	Tony Berry	49
The History of Novacon		51
Membership List and		54
Acknowledgements		56

Advertisements

BSFG	2
Harper Collins	12
Little Brown	18
Legend	24
BSFA	32
Wincon III	40
Eurocon94	40
Dragon's World	48
Critical Wave	53
Andromeda	Back Cover

The contents of this publication are© 1993 Novacon 23, reverting to the author or artist on publications

CHAIRMAN (IN) PIECE(S)

Carol Morton

Well, here we are, we made it to the con and everything has been sorted and .... wait a sec, no one ever reads the programme book until a) they are on their way home, or b) months later, so .... well the convention was fun wasn't it? There were no problems were there? In fact it was the best con ever! Seriously folks we have, as of going to press, planned for every eventuality barring an act of God, so the con should go well.

I was pondering the other day just why do we volunteer to run conventions? Just for the fun I suppose, because if we knew the amount of work and stress involved we wouldn't do it.

I have quite a few people to thank not least my wonderful committee, especially my hubby Tony who has had to put up with a more than usual paranoid wife over the last few months and still managed to produce some excellent publications; Richard has managed the finances admirably, even if those brochures for the Carribean do seem a little suspicious; Bernie, in her last year as registrations has come up with quite a few brilliant suggestions, she'll be missed and Helena has been a rock and a fountain of knowledge for a first time chairman. The hotel have been great, even if they are causing Bernie a few headaches, they have acquiesced to nearly all of our demands with good grace and Martin Tudor has been the unsung hero with his unstinting and unflagging help. Thanks people you have worked hard and because of that the con will be great.

So, now it is up to you .... enjoy!

Oh, mine's a pint of Theakston's

PROGRAMME

FRIDAY 4th NOVEMBER 1993

4.00 pm Dave Lally will provide us with a showing of some of his personal video collection Whether this is in the main con hall, The Woxton Suite, or in the video room (The Waverley suite) on the sixth floor, depends upon technical availabilities. Watch for notices.

7.00 pm Opening Ceremony - just the usual, introduce the GOH, committee, you volunteer as gophers (please!) and present any last minute inspirations.

7.45 pm Julian Headlong is to present us with his talk on "I am Spock's Liver". Your chance to find out just what effect alcohol and various other substances would have on a copper based blood system. Fascinating Captain!

9.00 pm University Challenge Round 1. Dave Cox's fiendish SF quiz in the University Challenge style. Your chance to finally answer a "your starter for 10".

10.15 pm Book Launches/Andromeda Party. Novacon 23 is proud to present the launch of not one book but two. Firstly our GOH Stephen Baxter's new book FLUX and secondly the graphic novel of David Gemmell's LEGEND, with artwork by our own Fangorn. Back by popular demand is the Andromeda party/signing session. Rog Peyton will have on hand all those authors he has managed to ~~con~~ persuade into turning up and it is your chance to get that signed copy. Oh by the way, there will be some free booze courtesy of Harper Collins, Legend and of course Andromeda.

12.00 midnight Film 1. GAS-S-S-S, OR HOW IT BECAME NECESSARY TO DESTROY THE WORLD IN ORDER TO SAVE IT. See film notes.

Dave Lally has agreed to put on a 24-hour video programme over the weekend, this will take place in the Waverley Suite on the sixth floor. So go along and keep all the other insomniacs company.

SATURDAY 6th NOVEMBER 1993

10.00 am Jack Cohen will give us another of his inimitable talks, this time on "How not to build a dinosaur - or why Jurassic Park wouldn't work". This promises to be a talk well worth getting up early for.

11.15 pm Book Auction. Rog Peyton will - in his own individual style, persuade, browbeat, con or just generally encourage you to part with your cash in return for some priceless (!) works of literature.

1.15 pm EXCLUSIVE! Bob Shaw will be giving one of his Serious Scientific talks. This is his first new talk since Worldcon '87 and it is entitled "The First Irish Space Probe". Now the mind boggles at that, so do come along for what promises to be one of the highlights of the weekend.

2.30 pm University Challenge Round 2. By the way no SF encyclopaedias allowed.

3.30 pm Guest Of Honour Speech. Stephen Baxter gives us his talk and insights into the writing of hard SF.

4.45 pm Panel. Discussion on "Why the lack of Ethnic Minorities in SF". Chris Baker, Bernie Evans and Graham Joyce try to shed some light on the lack of Ethnic Minorities within the genre.

6.00 pm Crystal Balls. Kev Clarke and Steve Green host the return of the Novacon silly game (which will have a flavour of the infamous "Krapton Factor" circa 1984 and maybe even some of the same folk taking part - some people never learn).

8.00 pm Film 2 SNEAKERS - see film notes.

(after the film there will be a break to allow the following item set up time).

10.30 pm Live Band - Bad Influence. Come along and bop or just listen to the sounds of rock and R&B.

1.30 am Film 3 - A 3-D presentation of THE CREATURE FROM THE BLACK LAGOON. See film notes.

SUNDAY 7th NOVEMBER 1993

10 am Ian Stewart talks to us on "How to Build a Universe". After the talk Ian gave us last year this will be well worth hauling yourself out of bed early.

11.15 am Art Auction. Remember the Art Show? (Rooms 204 ,205 and 206) did you visit? If not it's too late 'cause Rog Peyton and Chris Morgan will be auctioning off the artwork. So come along and bid for that masterpiece.

1.15 pm Panel. Discussion between Stephen Baxter, Dave Hardy, Paul Kincaid and David V Barrett with Chris Morgan moderating on why the sudden and recent popularity of Mars as a setting for novels.

2.30 pm University Challenge Final/3rd-4th place pay off. Your chance to see just who are the smarty pants amongst the Novacon membership.

3.45 pm Turkey Readings. Graham Joyce, Tom Holt and others will read out to you your and their "favourite" turkeys.

5.00 pm Award Ceremony. Come along clutching your raffle tickets and see the lucky winners, see who won the Novas and who walked off with the University Challenge prizes and the Crystal Balls trophies. Say bye-bye to the committee and the Guest of Honour and sign up for next year.

6.15 pm TAFF Auction. Abi Frost and maybe Pam Wells will be auctioning off items for TAFF so if you have any dosh left come along.

7.30 pm Beer tasting. For the connoisseur and the beginner, Martin Tudor will be hosting a Beer tasting. He even went to such lengths as packing his relatives off to various sites around Europe to pick up that elusive special brew. Come along and sample the best of bottled beers.

????? Peoples Disco. It'll start when the beer is beginning to run out. If you have any special tapes you want played bring them along, but please no rap or rave.

Well that's it. Hope you enjoy the programme and if you do any alcohol contributions will be gratefully accepted. If there was something or other you didn't like or objected to tell me and perhaps amends can be made.

NOVACON 23 FILM PROGRAMME

Notes By Steve Green

Film 1 - GAS-S-S-S, OR HOW IT BECAME NECESSARY TO DESTROY THE WORLD IN ORDER TO SAVE IT (1970, 79 minutes, dir. Roger Corman)

When a biowarfare leak kills everyone over twenty-five, Coel (Robert Corff) and Cilla (Elaine Giftos) journey in search of a New Mexico hippy commune, guided by the resurrected Edgar Allen Poe.

One of Corman's most personal projects (He also produced the film and worked on the screenplay with George Armitage, who appears on-screen as Billy the Kid), this bizarre and highly self-referential road movie was extensively re-edited against his wishes by American International, the studio behind his famous cycle of Poe adaptations. Appalled, Corman quit AIP and set up his own distribution company, New World Pictures, creating a platform for such newcomers as Francis Ford Coppola, Martin Scorcese and Joe Dante, as well as introducing American audiences to the work of Akira Kurosawa and Ingmar Bergman; Corman himself, however, refused to get back into the directors chair again until the 1990 adaptation of Brian W Aldiss' SF novel FRANKENSTEIN UNBOUND.

Film 2 - SNEAKERS (120 mins, dir. Phil Alden Robinson)

In 1969, computer hacker Martin Brice narrowly avoids capture by the authorities and goes underground, resurfacing under the name Martin Bishop (Robert Redford) to set up a security consultancy with former CIA operative Donald Crease (Sidney Poitier) and three fellow hackers (Dan

Ackroyd, River Pheonix, David Strathairn). Embroiled in a deadly web of deceit, Bishop enlist the aid of ex-girlfried Liz (Mary McDonnell), little realising his quarry is a figure from his activist past (Ben Kingsley).

Whilst somewhat of a disappointment after Phil Alden Robinson's directorial debut with 1989's spellbinding fantasy FIELD OF DREAMS, SNEAKERS is nevertheless a slick and efficient technothriller, scripted in collaboration with producers Lawrence Lasker and Walter F Parkes. Kingsley's evangelical description of cyberspace echoes William Gibson's, but Robinson's own, more cynical, slant is tipped by his use of a Charlton Heston soundbite from 1958's TOUCH OF EVIL: "I looked in this box just now - and there wasn't anything there."

Film 3 - THE CREATURE FROM THE BLACK LAGOON (1954, 79 mins, dir. Jack Arnold)

A team of scientists, headed by David Reed (Richard Carlson), Kay Lawrence (Julia Adams) and Mark Williams (Richard Denning), discover the last survivor of a prehistoric amphibian race in a remote lake. Following a series of unsuccessful attempts to capture the Gill Man, it retaliates and kidnaps Lawrence, forcing Reed to launch an armed attack upon its lair.

Although never as popular as the protagonists of Universal's major horror cycle (Dracula, the Frankenstein Monster, the lycanthropic Larry Talbot), the Gill Man's debut proved successful enough to spawn two sequels, 1955's REVENGE OF THE CREATURE (again directed by Arnold) and THE CREATURE WALKS AMONG US (dir. John Sherwood), as well as a guest appearance in the comedic teenflick THE MONSTER SQUAD (1987, dir. Fred Dekker). This, however, is by far the best entry in the series, with impressive underwater photography by James C Havens, Adams' bathing scenes an admitted influence upon the adolescent Steven Spielberg. Spare a thought, too, for Ricou Browning, who wore the scaly wetsuit throughout the trilogy (other actors essayed the role on land) and had to hold his breath for up to five minutes for each shot, since there wasn't room for an aqualung. Like Arnold's SF debut IT CAME FROM OUTER SPACE (1953), THE CREATURE FROM THE BLACK LAGOON was shot in 3-D; full marks to Carol and her committee for reviving the experience for this year's members.

Arnold was approached during the early 1980's to direct a remake, with AMERICAN WEREWOLF's John Landis producing, but the project reportedly floundered over the script by QUATERMASS creator Nigel Kneale, who quit to work with John Carpenter on HALLOWEEN III: SEASON OF THE WITCH (1983, dir. Tommy Lee Wallance); coincidentally Carpenter's name has been linked with a mooted remake. Arnold himself died last year, aged seventy-five.

COMMITTEE BIOGRAPHIES

CAROL MORTON (CHAIRMAN)

Carol cut her convention running teeth on Twentycon back in 1991, and followed this up by doing programme for Novacon 22. Her graduation to Chairman came late one Brum Group evening when instead of saying 'no' she rather foolishly said, 'do you think I could do it?' Since anything short of a definite statement in the negative is jumped on as a positive in this game, the matter was considered sorted.

Since then Carol has been on the receiving end of more stress than that experienced by Birmingham's Spaghetti Junction, the only difference being that Carol is crumbling slightly more slowly. The sleepless nights, bitten finger nails (she's saving the toes until the convention itself) and torn out hair didn't however stop her leaping feet first into the void to take over the programme organising as well, when Andy Wright had to resign. The fact that he is still walking (although we're not so sure about other functions off hand) is testament to Carol's proactive and positive attitude to stress management ie. worry about all the little, insignificant things while hell, what's a disaster or two between friends. By the way Carol are you sure you booked the hotel this year?

Essential tips on meeting Carol:

- A nice thing to say: "Great con Carol here's my cash for next year."
- On no account say: "Is that your son I just saw pushing the General Manager out of the window?"

BERNIE EVANS (REGISTRATIONS)

Bernie's convention running teeth were cut so long ago that it seems pointless to dwell on the point. Indeed it would be more relevant to ask when they were honed into a set of fangs.

Bernie's address is of course the best known in fandom. If in doubt about where to register for a con send your registration to Bernie anyway, the chances are you will be right. Cynics have been saying for some time now that perhaps Bernie volunteers for a little more than it is humanly possible to do. Bernie herself was of course oblivious to this until enlightenment finally struck. Showing remarkable insight and perception she remarked that she realised she was taking too much on "when I got dropped from every fucking thing I was involved with".

Her recent announcement of her retirement from work could of course put

a whole new complexion on this. Interestingly enough she also claims that when she has retired she will be able to devote time to cooking and cleaning. Any suggestion that this would lead to a new model Bernie Evans, into daytime TV and coffee mornings, was however gently put aside by Bernie: "Fuck Off" she commented.

Essential tips on meeting Bernie:

- A nice thing to say: "I'm running a con next year and would really love to have you on the committee."
- On no account say: "I'm running a con next year and would really love to have you on the committee."

HELENA BOWLES (OPS)

This is the fourth convention that Helena has been involved with, having chaired Twentycon and Novacon 22 and organised the programme for Novacon 19. In addition she has worked on the BSFG committee for some years.

Helena is perhaps best know for her love of real ale. This of course extends not only to drinking it but sharing it with the pub at large. The latter involves an uncanny ability to upset a stable pint of beer at ten paces by mental power alone, and the rather more mundane habit of gesticulating in a particularly animated fashion with the same arm in which she is clasping her (by now empty) pint glass. Helena's regular drinking friends are seldom seen without sou'westers and wellington boots. Anyone wishing to have a chat with Helena over the weekend is strongly advised to hire these items from the registration desk.

Essential tips on meeting Helena:

- A nice thing to say: "Can I get you a pint to replace the one I'm now wearing?"
- On no account say: "Can you demonstrate you Simon Rattle impersonation?"

TONY MORTON (PUBLICATIONS)

Tony's fannish credentials extend to producing the Brum Group News in the past and chairing the group this year and last.

Tony is best known in Birmingham however in his capacity as employee for the City Planning Department. Any visitors this weekend who are unlucky enough to get run down by a bus, dust cart or taxi on one of Birmingham's

newly pedestrianised streets will be especially appreciative of the good work that Tony's department is doing.

Tony is also well known for his musical ability and this can be witnessed first hand when his band plays on Saturday night (look, they were cheap OK and Right Said Fred were fully booked).

Essential tips on meeting Tony:

- A nice thing to say: "Hi I'm Chief Executive of EMI and I'd like to sign your band for a ten album deal."
- On no account say: "Do you play rave?"

RICHARD STANDAGE (TREASURER)

Richard is now the veteran of four conventions and has been on the Brum Group Committee for three years. This experience sounds impressive enough until you realise that all these positions have been as Treasurer. Worries that he may be getting just a little stereotyped (not to mention being thought of as a money grabbing miser) prompted him to volunteer to chair next year's convention, and his operation to be surgically removed from the Treasurer's Account passbook is due any day now.

Essential tips on meeting Richard:

- A nice thing to say: "You're wanted on the 'phone Richard, Kenneth Clarke needs some advice."
- On no account say: "Lend me a tenner you tight git."

ANNOUNCING . . . . . .

NOVACON 24

Dates: 4 - 6 November 1994

Venue: Royal Angus, Birmingham

GOH: The Award winning Graham Joyce

Price: Since about half next years committee are public sector workers, we thought we would take a leaf out of Mr Majors book and have a zero per cent price rise next year. Join at this convention for just £18. (£20 from the end of the con until Eastercon; £25 until 1.10.94; £30 on the door.

Chairman: Richard Standage

STEPHEN BAXTER

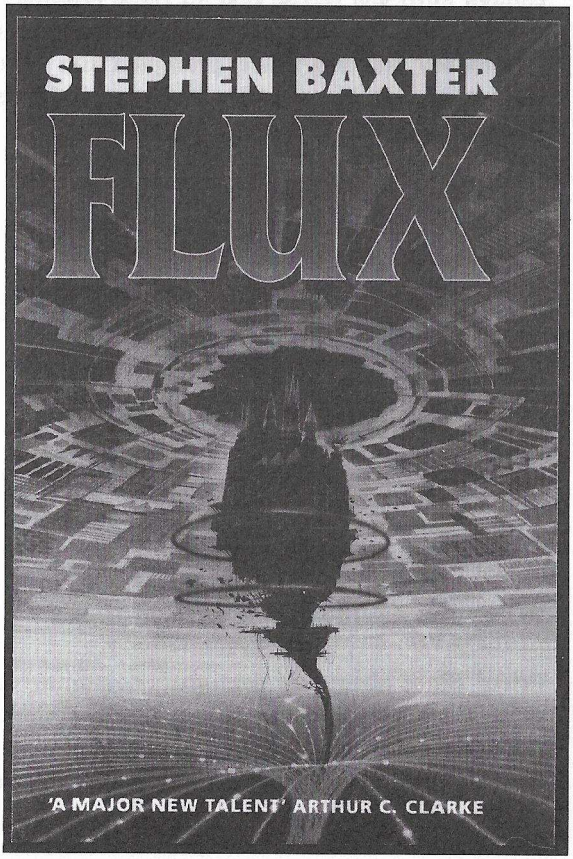
'A major new talent' Arthur C. Clarke

'It is in the creation of a genuinely strange and believable new universe that Baxter excels' Lisa Tuttle, *Time Out*

'He writes like I used to. I should have him assassinated before it's too late' Larry Niven

'Baxter is destined to be one of the genre leaders for the nineties' *Starburst*

Flux is Stephen Baxter's fourth novel, and is his biggest and most ambitious yet. It is every bit as startlingly original as his earlier books, but the depth and detail in which its strange world is explored go beyond anything he has so far written, and confirm that here, at last, is the British successor to Arthur C. Clarke.



PUBLISHED: 6 DECEMBER 1993
ISBN: 0 00 224025 4
PRICE: £15.99 NET

HarperCollins*Publishers*

SCIENCE VERSUS FICTION

The Dilemma of Hard SF

by Stephen Baxter

I enjoy what's known as "hard SF" - SF dealing with phenomena which, however fantastic, are (reasonably) consistent with our current scientific base. I like to read it and I like to write it, and my intention with my novel RAFT (1) was to write a good sound hard SF novel.

Which is all very well, and I hope I've succeeded with RAFT: but in the course of working in this field I've many times come up against the curious dilemma of the hard SF practitioner: that there is a conflict between the science and the fiction.

In a good hard SF piece there will be one (at least !) new science fictional idea. And the new idea has to be really new; that's what makes the thing so damn hard. (The usual props - aliens, FTL ships, bizzare variants of the human form, even physical exotica such as black holes and space warps - don't count ! After decades of space opera and STAR TREK, bless its soul, these things are part of our mental furniture.)

Given the idea, next comes extrapolation: if this were so, what if .... ? Answers to this question, generated by a disciplined use of the imagination, will provide the setting for the drama. Extrapolation is probably the most enjoyable part of SF universe-building, but the trick is to come up with phenomena which are not only interesting, and in tune with the rest of our scientific world view (the Second Law of Thermodynamics is a good one to forget about !) - but also logical and plausible.

But even the best piece of science, even the most imaginative extrapolation, isn't enough. There's also the fiction .... for in the end, it's only the fictional elements which will keep the reader turning the pages. Dramatic fiction centres around sympathetic people (and other lifeforms, Captain), struggling in conflict with each other - with their environment - or even with themselves.

So, putting all this together, to construct my chunk of hard SF I need to obtain, somehow, my good idea; to extrapolate; to construct a conflict around that idea; and, ideally, to use the central idea to resolve that central conflict.

To illustrate how all this works, I'll describe how I assembled the universe and events of RAFT.

The central, new, idea of the novel is summarised in the first sentence of the cover blurb. "*Imagine a universe where the force of gravity is one billion times as strong as the gravity we know ...*" I got the basic idea - in not much more detail than that - from a throwaway line in a pop science article .... but it was enough to start me thinking.

Hm. One billion times as strong ? ... Yes, but what does that mean exactly ?

Let's be more precise. Suppose we have a universe in which every physical law is identical to the universe we inhabit - except for gravitation. We even require that Newton's inverse square law still holds: but we make Newton's gravitational constant G, the number which gives gravity its size, one billion times larger than here.

That is the only significant change in the universe of RAFT; everything else is extrapolation.

(Why one billion ? Simply because gravity would then be large enough for human bodies to have a pull of about half a gee close up, and the idea appealed to me !)

Now that we've set out the ground rules we can start to play games. I've always liked the idea of walking about on large non-spherical structures - my story "Vacuum Diagrams" in INTERZONE #35 features a walk around a cube-shaped planet, for instance - and RAFT gave me plenty of scope. The raft of the novel's title is an inhabited metal disc a few kilometres wide. The mass of the disc, aided by the large G, gives a gravity field of a gee or so near the disc's centre: you could walk about at the centre of the Raft and it would feel like any near-flat surface, like the surface of the Earth.

Now let's suppose you took a walk away from the centre [watching out for the flying trees (read the book !)] and hiked out towards the Rim. You would be walking away from the Raft's centre of mass, so for a start the force of gravity would diminish - but it's direction would change also. As you were drawn back to the centre, it would feel as if the Raft was sloping up beneath you. You would feel as if you were climbing a steepening hill - as if the Raft were really a bowl-shaped artifact. But the Raft is flat, of course; if you looked back it would appear to tilt beneath you. And the degree of tilt would increase, disconcertingly, as you walked further out ....

All right. What about other, more subtle, differences in the universe of RAFT ? Our Sun couldn't survive there; it would simply implode. Could there be stars at all ?

The size of a star is determined by a balance between radiation pressure, which tends to blow the star apart, and gravitation, which tends to collapse it. It turns out that the size varies inversely with the square root of G. Our Sun is about a million miles across, so RAFT stars would be only a mile or two wide. And stellar lifetimes go inversely with G, so RAFT stars might last a year or so ... Toy stars a mile wide, which last a year! This is the sort of stuff which determines whether an idea is not only good but interesting.

How could humans survive in such a universe? To set this up I imagined a nebula thousands of miles wide centred on a black hole. Firefly stars form and expire continually throughout the nebula, leaving behind heavy elements. I

imagined native life evolving and filling the nebula with an oxygen-rich atmosphere suitable for humans. How do the humans get there? By means of an inter-universe portal, through which they come blundering in a starship. The ship instantly implodes, leaving the humans to build their Raft in the air from the debris.

.... And so on. Fascinating stuff, and all based on a single premise (apart from the standard items like the starship) - the value of G.

All this is interesting science, but we still don't have any fiction. The classic question to ask is "who is all this hurting ?" To generate an answer I imagined the nebula becoming exhausted of hydrogen - the fuel which forms new stars. The nebula is growing cold and choking up; and the conflict our human castaways face is a struggle to survive in a universe turning even more hostile. And the humans attempt to resolve the conflict - that is, to survive - by exploiting still more exotic extrapolations from the science idea ....

Forgive me for not giving away any more !

If you want a classic example of this sort of extrapolative, tough minded SF, consider TAU ZERO by Poul Anderson. The central idea here is a slower-than-light starship .... whose brakes don't work. That's all there is to it ! But as the ship gets closer and closer to the speed of light, we start to learn what relativistic time dilation means, really.

So if that's the process of generating hard SF, what can fail? What produces the "dilemma" of the title of this piece ?

In my experience things go wrong for two reasons. The first reason is genuine mistakes! Since I am (hopefully) going where no lifeform has gone before, it's always possible I'll miss something. I heard of one rather naive young writer who wrote another story dealing with a variation in the force of gravity, but in this case the author failed to notice that atmosphere couldn't stick to the surface of the Earthlike planet his plot was set on. What a dipstick! (2) Happily that piece is safely hidden away in a trunk, waiting to be reworked one day; other people have made much more public bloomers. RINGWORLD, for instance, turned out to be unstable! - Larry did not spot that within a few years of construction it would slide into its central sun .... until the fact was pointed out to him by a group of gleefully chanting fans at a convention. Larry put this right in RINGWORLD ENGINEERS 10 years later by mounting stabilizer rockets on the rim of Ringworld. As a reader I was never happy with this: it's a little dumb after all, of the Engineers to build a solar-system-sized artifact which is inherently unstable, stabilizers or not. In fact the plot of ENGINEERS is generated by villains swiping the stabilizers for their own antisocial purposes. RINGWORLD was a good piece of fiction despite the bloomer; I like to think I would have let it stand and what the hell ....

Which brings me to the second cause of hard SF derailment - the needs of the fiction. Science alone isn't enough; the need for drama and conflict is more important (in my view). But there is a difficult balancing act to maintain.

An overobsession with the detail really doesn't help hard SF. Look at REDSHIFT RENDEZVOUS by John Stith, for example. Not a great book but a nice central idea: consider a universe where the speed of light is so low that you experience relativistic effects even when running .... But the book closes with a long essay justifying the various extrapolations from the idea. Do we need this ? Not I; I would have preferred Stith to skip the cod-science lecture, to think more about his plot and maybe to produce a less disappointing book.

So, if we argue against too much detail, am I allowed to "bend" my science to make the plot work ? Maybe .... but the key dilemma is that I might lose the sympathy of the reader on the way. A classic case is Niven's NEUTRON STAR. I'm not the first to point out that the resolution of the plot hinges on the requirement to believe that the Puppeteers, an ancient and immensely powerful race of interstellar travellers, know nothing about tidal effects .... simply because they evolved on a planet without - a Moon. That set my teeth on edge; you don't have to study gravity physics to any great depth before coming across tidal effects - that is, higher-order components of the gravity field of a large body - Moon or no Moon. It simply isn't conceivable that the Puppeteers could have got off their planet with such a hole in their understanding. (To be fair this may be a mistake of Niven's rather than a fake extrapolation; the key events of the story would work without the tidal stuff .... although, sadly, I've recently heard there are other problems with those! Never mind Larry; if it wasn't a great story no-one would care enough to quibble after all this time ....)

Most readers, perhaps, being interested but unversed in gravitational exotica, would not spot this slipperiness. But any reader who knew as much, or more, about the subject as the author would be as irritated as hell - even if the reader basically liked the story, and/or the author.

There are ways round a mistake and conscious (or semiconscious) lapses like these, of course. I got RAFT read by a few knowledgeable people, who pointed out some of the more obvious flaws in the scenario .... which I endeavoured to correct without hitting the books page-turn-ability.

So the dilemma I'm describing comes from the conflict between the readers' competing needs for good and interesting science and for good and compelling fiction. They - I - don't want to read "space opera", nor do they want to read academic texts. But the requirements of the fiction will often conflict with the strictness of the scientific extrapolation.

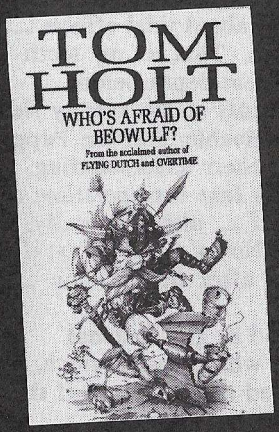
I hope I've got the balance right in RAFT, and in my next book (provisionally titled TIMELIKE INFINITY). But I don't suppose it will ever get any easier .....

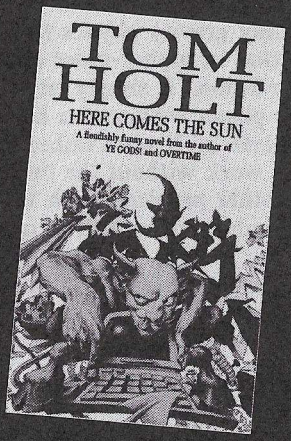
(1) Grafton, £14.99
(2) Oh, alright, it was me.

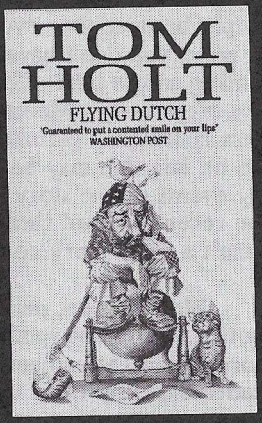
(This article was first published in CRITICAL WAVE #23)

TOM HOLT

FROM ORBIT BOOKS

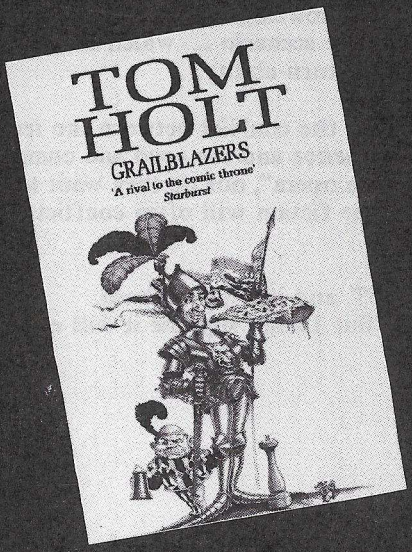


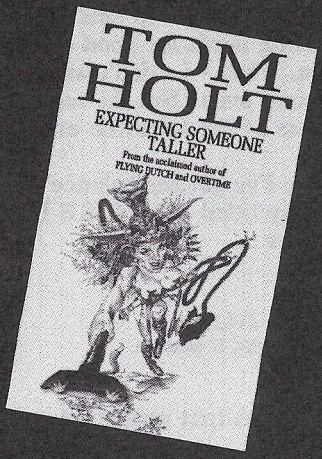




'This is comedy with a very wide grin'

JOHN CLUTE, INTERZONE





ORBIT

THE HARD STUFF

AL JOHNSTON

I agree wholeheartedly with what Stephen has said. I too enjoy hard SF, although I can't claim any success in writing it. In a sense the dilemma that Stephen identifies is at the core of what make hard SF appealing. You can call it macho posturing if you like, but there is something in Kennedy's assertion that "We choose to do these things, not because they are easy, but because they are hard." It's better than his one about being a bread roll anyway. [1]

I suppose the dilemma is implicit in the name. Science is often romanticised as the quest for ultimate truth, particularly by those who spend long boring days in dingy laboratories repeating an experiment for the n thousandth time because someone wants to establish a "Statistical Correlation". On the other hand, practitioners of fiction go to great lengths to stress how boring and mundane their job is, emphasising the minimal romance inherent in your average computer screen. When all is said and done fiction is the art of telling convincing porkies. So in SF you are lying about the truth. In hard SF you get more rigorous in the truth you lie about.

Anyway, for those of us who weren't shot (or even born) thirty years ago here's a kit of essential parts you might need to bolt your hard SF story together. (You can tell I was an engineer, sorry: I were an engineer.)

Plot

Fairly essential this you might think, but not necessarily. I fact, you will never gain recognition in "High Literary" circles unless you dispense with such a low-brow affectation a la Harold Pinter et al. Since your opus will doubtless have "Science Fiction" printed on the back cover you are automatically disbarred from such literary recognition so you might as well have one anyway. (Read some of the crud they call literature and you will probably decide you don't want literary recognition. Far better to adopt Liberace's reaction to harsh criticism and "Cry all the way to the bank.")

So, have a plot. A good plot not only makes your story more entertaining, it also helps you out with the other parts of the novel. Authors often blame inaccurate science or skimpy characters on "exigencies of the plot," so if you are at all unsure about the rest of your book, have a plot with as many exigencies as possible. In fact add some extra ones just to be sure.

Characters

No one can do without these, although to avoid charges of excessive minimalism, you should have more than one. Try not to have too many steely, blue-eyed, square-jawed types (of either sex or hermaphrodites) lest you be accused of
space opera. Namewise keep it simple and relatively normal sounding: names

[1] Literal Translation of "Ich bin ein Berlinner"

that look like anagrams, or as if you just can't spell, are somewhat passe these days however popular they may have been in the thirties. Robots can often set the character of your piece. They can be:-

a. Soulful, introspective and more human than the humans; use these in tragedies, see *Blade Runner* for example.

b. Dull, sanctimonious and given to obeying programmed laws of behaviour; general purpose SF.

c. Possessed of a variety of interesting personality defects, general insanity, or at least a weird accent and odd shaped head for comic effect.

Please note that using the wrong type of robot in the wrong type of story is very hard to pull off. It is OK for robots to be steely, square-jawed and blue-eyed etc; almost by definition they can't help it.

The one essential for all characters is to be imperfect, human and above all convincing. Don't ask me how to do that. Remember, I'm writing this for naff-all except peer-group recognition. If I knew how I'd be sunning myself on a squillion-pound advance rather than passing on the benefit of my experience like this.

Science

As it is hard SF you're writing you need some science. Physics is the undoubted front-runner, there is plenty of scope for little variations for the laws to provide alternate universes for your characters to live in. Even keeping the laws as they are throws up enough oddities to build a story around. FTL star-ships are a standard evasion of physics as we know it, but the hardest SF scorns even these, sometimes offering bizarrely mundane solutions to the problems involved. An example is the ablative ice-tile shield in Arthur C Clarke's *The Songs of Distant Earth*.

There is a lot to be said for going off the beaten track and picking other science to ~~muck about with~~ provide inspiration. Biology is fairly popular, and people tinker with metallurgy as a matter of course. Someone should have told Gene Roddenberry that a Dilithium Crystal is a contradiction in terms. Maths, and Chaos in particular, is crying out for exploration. Be warned though, for hard SF Sociology will never cut it.

In the final analysis, to be useful science devolves to engineering. The smart operator will exploit this to the full. In the story it provides excuses for things not to work at critical junctures. Outside the story it provides counter-examples to cover your mistakes: *Ringworld* unstable ? Look at the Tacoma Narrows Bridge. And if all else fails there's always "The engines cannae take it, Captain !"

There are probably many other things you will want to put in your story, large quantities of gratuitous sex and violence for example. Go ahead; it's yours. And don't worry about getting it wrong: in the long run, that's more memorable.

Stephen Baxter - Bibliography

NOVELS

RAFT, Harper Collins 1991 (UK); Penguin ROC 1992(USA); Harper Collins (Australia). To appear : German, Japanese editions.

TIMELIKE INFINITY, Harper Collins 1992 (UK); Penguin ROC 1993 (USA). To appear : German edition.

ANTI-ICE, Harper Collins 1993 (UK).

FLUX, Harper Collins 1993 (UK).

RING, Harper Collins 1993 (UK) (Projected).

THE TIME SHIPS, Harper Collins 1995 (UK) (Projected).

SHORT FICTION

All material is shown in order of first publication.

Xeelee Sequence

The Xeelee Flower, INTERZONE 19, 1987.

The Bark Spaceship, DREAM 14, 1987.

More than Time or Distance, OPUS 4, 1988.

The Eighth Room, DREAM 20, 1989.

Blue Shift, WRITERS OF THE FUTURE Vol V, Ed Algis Budrys, Bridge 1989.

Raft, INTERZONE 31, 1989.

The Quagma Datum, INTERZONE 4th ANTHOLOGY, Ed John Clute et al, Simon & Schuster 1989.

The Switch, EDGE 2, 1990.

The Tyranny of Heaven, DREAM 24, 1990.

Vacuum Diagrams, INTERZONE 35,1990.

The Baryonic Lords, INTERZONE 49-50, 1991.

The Godel Sunflowers, INTERZONE 55, 1992.

Planck Zero, AZIMOV'S, Jan 1992.

The Sun-Person, INTERZONE 69, 1993.

Chiron, NOVACON 23, 1993.

Unrelated

On the Side of a Hill, JENNINGS 6, 1987 (SF contest prize winner).

The Space Butterflies, BACK BRAIN RECLUSE 13, 1987.

Something for Nothing, INTERZONE 23, 1988.

The Habitat, DREAMS 17, 1988.

The Jonah Man, INTERZONE 28, 1989.

The Droplet, OTHER EDENS III, Ed Christopher Evans and Rob Holdstock, Unwin Hyman 1989.

Journey to the King Planet, ZENITH 2 Ed David s Garnett, Sphere, 1990.

The Entopic Man (drabble), LYRE 1, 1991.

Traces, INTERZONE 45, 1991.

Before Sebastopol, NEW MOON 1,1991.

George and the Comet, INTERZONE 52, 1991.

Weep for the Moon, IN DREAMS, Ed. Paul McAuley and Kim Newman, Gollancz 1992.

Orchards of the Moon, INTERZONE 60, 1992.

In the Manner of Trees, INTERZONE 62,1992.

Inherit the Earth, NEW WORLDS 2 Ed. D Garnett, Gollancz 1992.

No Longer Touch the Earth, INTERZONE 72, 1993.

Paradox (drabble), DRABBLES vol 3, 1993.

Pilgrim 7, INTERZONE 67, 1993.

Downstream, INTERZONE 75, 1993.

Omegatropic, NOVACON 23, 1993.

Shared-World

The Star Boat, IGNORANT ARMIES (Warhammer), Ed. David Pringle, Games Workshop 1989.

The Song, RED THIRST (Warhammer), Ed. David Pringle, Games Workshop 1990.

The Strongest Armour, VILLAINS! (Midnight Rose), Ed. Mary Gentle and Roz Kaveney,Penguin ROC 1992.

Imaginary Time, WEERDE 2 (Midnight Rose), Ed. Mary Gentle and Roz Kaveney, Penguin ROC 1993.

NON FICTION

'Angular Distribution Analysis in Acoustics', Springer-Verlag 1986.

'Science vs Fiction', CRITICAL WAVE 1990.

'George Zebrowski', BSFA VECTOR 169, 1992.

EDITING STEPHEN BAXTER

by his desk editor

I'm a backroom boy so I'll remain anonymous. My boss Malcolm Edwards has the high profile, lunching Stephen and urbanely discussing advances and story ideas with him. My job is to receive with hot, eager hands the ms. of Stephen's latest work and check it for errors in syntax, spelling, continuity, consistency . . . Actually, I'm not a boy, which may or may not account for my interest, also, in how the emotional tone of the story fulfils a reader's need.

On some of these points, comment will be called for. But Stephen will have produced more than one draft of the novel to meet his own exacting standards. The pages I receive are already fine-tuned, and whether such comment produces any changes is entirely Stephen's option, not a part of the process required to reach the printed page.

It should be noted that Stephen delivers the crispest, cleanest, most meticulously pared down mss/disks in the business. A delight. One is spared the dreadful prospect of asking him to cut something. He never waffles. Digression is not his style.

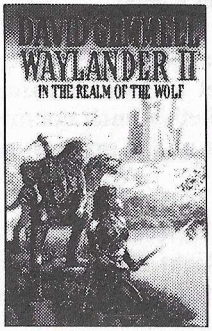
Big ideas are Stephen's style. He has an astonishing ability to piece together a coherent world from the wildest, most mind-brusing concepts available at the cutting edge of physics. What's more, the sum is greater than the parts - - - and that is how Stephen's fictional worlds come alive, shaping the characters inhabiting them. It is this natural affinity between setting and character that gives Stephen's work its special flavour, enabling a pace second to none to be sustained indefinitely.

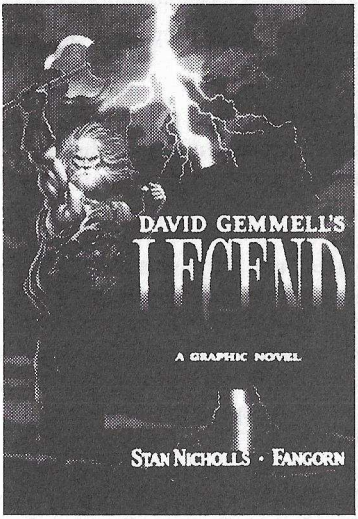
As Stephen's editor, and one of the envied few to read his new work before it's a *book*, what strikes me first is what a rattling good read I'm having, notwithstanding the chore of turning A4 sheets of paper. Only little by little does it dawn on me that it's not only the extraordinary content and storyline that are working their magic on me - - - but Stephen's precise, kid-gloved use of the English language. Each word has the power of necessity. Stephen arrives at a literary style all his own because he has the genuine, creative humility to allow the ideas he's blessed with the express *themselves*. This is because he has no false modesty, thank goodness, about his own ability to extrapolate imaginatively from current state-of-the-art science, and he wastes no time trying to fit in with literary *fashion*. The style police do not frighten him into botching the grandeur of his futuristic vision with clumsy witticisms. But he's lucky - - - because neither does portentousness ever to threaten to weigh that vision down.

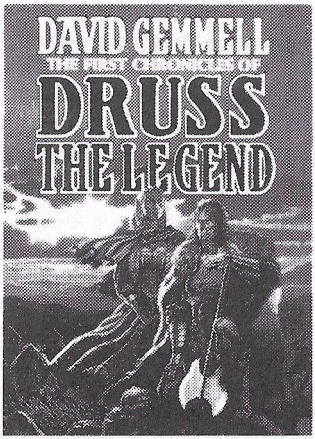
Editing Stephen Baxter involves stepping into a new world . . . a new continuum . . . a new universe . . . and packaging that new universe between bookcovers so that it looks deceptively like part of this one.

Britain's King of heroic fantasy

DAVID GEMMELL







LEGEND

NOW AVAILABLE FROM LEGEND

FANDOM & THE R.N.I.B.

Roger Robinson

Through the years Fandom has generated money for worthy causes - some fannish (helping fans and/or committees in need), some outside (Cancer Research etc.). Many conventions nowadays have a nominated charity which they list in their programme books and which they, to varying degrees, donate money. This is done in various forms, from the simple waving a fee for a table in the dealers' room to a straight donation from their profits and the rattling of collecting tins under noses (with appropriate arm twisting).

Over the years Novacon (and the Brum Group) has been one of the leaders in raising money for charity and especially for one specific charity - the Royal National Institute for the Blind's "Talking Book" Library. Many of you will remember Gill Smith of the RNIB visiting Novacon 22 last year and being presented with a cheque for £2,500. The look of surprise on her face was genuine as we had kept the amount secret until the cheque was presented. This was, however, nothing to the surprise she got a week or so later when I rang her to tell her that the amount was incorrect - it should have been £4,500! The extra money had been donated by the Albacon committee who had decided, in their current incarnation, to stop running conventions and so they decided to donate their accumulated profits to RNIB.

Each book recorded for the "Talking Book" Library costs £500 to produce, and their library now runs to over 10,000 titles. Although they reserve the right to veto any suggested title, they recognise that fandom is uniquely equipped to suggest suitable SF titles, so that there is a very good chance that any title we nominate will be recorded. As far as I am aware the first specific title requested as the result of a general collection at a con was THE DEMOLISHED MAN - which was nominated to honour Alfie Bester who, due to ill health was unable to visit Brighton as one of Conspiracy's Guests of Honour. This was an especially appropriate book for a Worldcon collection as the book won the first ever Hugo for Best Novel. The money was mainly raised at the famous auction of anti-hotel-manager cartoons which had previously decorated the walls of a corridor in the Metropole.

It would be impossible to list all the fannish events and individuals who have raised money for the RNIB over the 6 years but they range from Picocons, through beer auctions at Mexicons to the rattling of ice buckets at Prefab Trout. Fannish groups and conventions from as far afield as Glasgow, Winchester and Leeds have joined the Birmingham habit.

It was no surprise when the nominated charity for the DRABBLE PROJECT was announced as RNIB - after all the initial idea was formed in Birmingham. So far three limited edition books have been published by Beccon Publications with all the contributors waiving their fees and/or royalties in favour of the RNIB. So Birmingham-centred is the habit that the editor of another book whose contributors also supported the cause (the filk book THE DRUNKEN RABBLE PROJECT) has recently moved house to live in Birmingham.

As I mentioned earlier it would be impossible to name all individuals who have helped but I should mention two individuals. Tony Berry (one of the initial Novacon collectors) and Anne Page (for eloquence under pressure) can be justifiably proud of their work in this good cause.

Novacon 23 has one again nominated the RNIB as their charity - please give generously!

Books nominated to the RNIB after Novacon 22 (after a ballot for suggestions)

THE LEFT HAND OF DARKNESS - Ursula Le Guin
A CANTICLE FOR LEIBOWITZ - Walter M Miller
STAND ON ZANZIBAR - John Brunner
NORSTRILIA - Cordwainer Smith
TAKE BACK PLENTY - Colin Greenland
HYPERION - Dan Simmons
FALL OF HYPERION - Dan Simmons
EARTH ABIDES - George R Stewart
DESOLATION ROAD - Ian Macdonald

Books nominated to the RNIB after Novacon 19 (nominated by the major contributing groups)

GOLDEN WITCHBREED - Mary Gentle
"the next Discworld book" - Terry Pratchett
ESPEDAIR STREET - Iain Banks
ENGINE SUMMER - John Crowley

Books published to raise money for RNIB by Beccon Publications

1988 - THE DRABBLE PROJECT - ed. Rob Meades and David Wake (now sold out - £1,594 raised)
1990 - THE DRUNKEN RABBLE PROJECT - ed. Gytha North (selling at £5 - £147 raised so far)
1990 - DRABBLE II : DOUBLE CENTURY - ed. Meades and Wake (£5 a copy - estimate £1,200 profit when it sells out)
1993 - DRABBLE WHO - ed. Dave Howe and Dave Wake (just out, selling well at £8.99)

PROGRAMME

FRIDAY 4th NOVEMBER 1993

4.00 pm Dave Lally will provide us with a showing of some of his personal video collection Whether this is in the main con hall, The Woxton Suite, or in the video room (The Waverley suite) on the sixth floor, depends upon technical availabilities. Watch for notices.

7.00 pm Opening Ceremony - just the usual, introduce the GOH, committee, you volunteer as gophers (please!) and present any last minute inspirations.

7.45 pm Julian Headlong is to present us with his talk on "I am Spock's Liver". Your chance to find out just what effect alcohol and various other substances would have on a copper based blood system. Fascinating Captain!

9.00 pm University Challenge Round 1. Dave Cox's fiendish SF quiz in the University Challenge style. Your chance to finally answer a "your starter for 10".

10.15 pm Book Launches/Andromeda Party. Novacon 23 is proud to present the launch of not one book but two. Firstly our GOH Stephen Baxter's new book FLUX and secondly the graphic novel of David Gemmell's LEGEND, with artwork by our own Fangorn. Back by popular demand is the Andromeda party/signing session. Rog Peyton will have on hand all those authors he has managed to ~~con~~ persuade into turning up and it is your chance to get that signed copy. Oh by the way, there will be some free booze courtesy of Harper Collins, Legend and of course Andromeda.

12.00 midnight Film 1. GAS-S-S-S, OR HOW IT BECAME NECESSARY TO DESTROY THE WORLD IN ORDER TO SAVE IT. See film notes.

Dave Lally has agreed to put on a 24-hour video programme over the weekend, this will take place in the Waverley Suite on the sixth floor. So go along and keep all the other insomniacs company.

SATURDAY 6th NOVEMBER 1993

10.00 am Jack Cohen will give us another of his inimitable talks, this time on "How not to build a dinosaur - or why Jurassic Park wouldn't work". This promises to be a talk well worth getting up early for.

11.15 pm Book Auction. Rog Peyton will - in his own individual style, persuade, browbeat, con or just generally encourage you to part with your cash in return for some priceless (!) works of literature.

1.15 pm EXCLUSIVE! Bob Shaw will be giving one of his Serious Scientific talks. This is his first new talk since Worldcon '87 and it is entitled "The First Irish Space Probe". Now the mind boggles at that, so do come along for what promises to be one of the highlights of the weekend.

2.30 pm University Challenge Round 2. By the way no SF encyclopaedias allowed.

3.30 pm Guest Of Honour Speech. Stephen Baxter gives us his talk and insights into the writing of hard SF.

4.45 pm Panel. Discussion on "Why the lack of Ethnic Minorities in SF". Chris Baker, Bernie Evans and Graham Joyce try to shed some light on the lack of Ethnic Minorities within the genre.

6.00 pm Crystal Balls. Kev Clarke and Steve Green host the return of the Novacon silly game (which will have a flavour of the infamous "Krapton Factor" circa 1984 and maybe even some of the same folk taking part - some people never learn).

8.00 pm Film 2 SNEAKERS - see film notes.

(after the film there will be a break to allow the following item set up time).

10.30 pm Live Band - Bad Influence. Come along and bop or just listen to the sounds of rock and R&B.

1.30 am Film 3 - A 3-D presentation of THE CREATURE FROM THE BLACK LAGOON. See film notes.

SUNDAY 7th NOVEMBER 1993

10 am Ian Stewart talks to us on "How to Build a Universe". After the talk Ian gave us last year this will be well worth hauling yourself out of bed early.

11.15 am Art Auction. Remember the Art Show? (Rooms 204 ,205 and 206) did you visit? If not it's too late 'cause Rog Peyton and Chris Morgan will be auctioning off the artwork. So come along and bid for that masterpiece.

1.15 pm Panel. Discussion between Stephen Baxter, Dave Hardy, Paul Kincaid and David V Barrett with Chris Morgan moderating on why the sudden and recent popularity of Mars as a setting for novels.

2.30 pm University Challenge Final/3rd-4th place pay off. Your chance to see just who are the smarty pants amongst the Novacon membership.

3.45 pm Turkey Readings. Graham Joyce, Tom Holt and others will read out to you your and their "favourite" turkeys.

5.00 pm Award Ceremony. Come along clutching your raffle tickets and see the lucky winners, see who won the Novas and who walked off with the University Challenge prizes and the Crystal Balls trophies. Say bye-bye to the committee and the Guest of Honour and sign up for next year.

6.15 pm TAFF Auction. Abi Frost and maybe Pam Wells will be auctioning off items for TAFF so if you have any dosh left come along.

7.30 pm Beer tasting. For the connoisseur and the beginner, Martin Tudor will be hosting a Beer tasting. He even went to such lengths as packing his relatives off to various sites around Europe to pick up that elusive special brew. Come along and sample the best of bottled beers.

????? Peoples Disco. It'll start when the beer is beginning to run out. If you have any special tapes you want played bring them along, but please no rap or rave.

Well that's it. Hope you enjoy the programme and if you do any alcohol contributions will be gratefully accepted. If there was something or other you didn't like or objected to tell me and perhaps amends can be made.

NOVACON 23 FILM PROGRAMME

Notes By Steve Green

Film 1 - GAS-S-S-S, OR HOW IT BECAME NECESSARY TO DESTROY THE WORLD IN ORDER TO SAVE IT (1970, 79 minutes, dir. Roger Corman)

When a biowarfare leak kills everyone over twenty-five, Coel (Robert Corff) and Cilla (Elaine Giftos) journey in search of a New Mexico hippy commune, guided by the resurrected Edgar Allen Poe.

One of Corman's most personal projects (He also produced the film and worked on the screenplay with George Armitage, who appears on-screen as Billy the Kid), this bizarre and highly self-referential road movie was extensively re-edited against his wishes by American International, the studio behind his famous cycle of Poe adaptations. Appalled, Corman quit AIP and set up his own distribution company, New World Pictures, creating a platform for such newcomers as Francis Ford Coppola, Martin Scorcese and Joe Dante, as well as introducing American audiences to the work of Akira Kurosawa and Ingmar Bergman; Corman himself, however, refused to get back into the directors chair again until the 1990 adaptation of Brian W Aldiss' SF novel FRANKENSTEIN UNBOUND.

Film 2 - SNEAKERS (120 mins, dir. Phil Alden Robinson)

In 1969, computer hacker Martin Brice narrowly avoids capture by the authorities and goes underground, resurfacing under the name Martin Bishop (Robert Redford) to set up a security consultancy with former CIA operative Donald Crease (Sidney Poitier) and three fellow hackers (Dan

Ackroyd, River Pheonix, David Strathairn). Embroiled in a deadly web of deceit, Bishop enlist the aid of ex-girlfried Liz (Mary McDonnell), little realising his quarry is a figure from his activist past (Ben Kingsley).

Whilst somewhat of a disappointment after Phil Alden Robinson's directorial debut with 1989's spellbinding fantasy FIELD OF DREAMS, SNEAKERS is nevertheless a slick and efficient technothriller, scripted in collaboration with producers Lawrence Lasker and Walter F Parkes. Kingsley's evangelical description of cyberspace echoes William Gibson's, but Robinson's own, more cynical, slant is tipped by his use of a Charlton Heston soundbite from 1958's TOUCH OF EVIL: "I looked in this box just now - and there wasn't anything there."

Film 3 - THE CREATURE FROM THE BLACK LAGOON (1954, 79 mins, dir. Jack Arnold)

A team of scientists, headed by David Reed (Richard Carlson), Kay Lawrence (Julia Adams) and Mark Williams (Richard Denning), discover the last survivor of a prehistoric amphibian race in a remote lake. Following a series of unsuccessful attempts to capture the Gill Man, it retaliates and kidnaps Lawrence, forcing Reed to launch an armed attack upon its lair.

Although never as popular as the protagonists of Universal's major horror cycle (Dracula, the Frankenstein Monster, the lycanthropic Larry Talbot), the Gill Man's debut proved successful enough to spawn two sequels, 1955's REVENGE OF THE CREATURE (again directed by Arnold) and THE CREATURE WALKS AMONG US (dir. John Sherwood), as well as a guest appearance in the comedic teenflick THE MONSTER SQUAD (1987, dir. Fred Dekker). This, however, is by far the best entry in the series, with impressive underwater photography by James C Havens, Adams' bathing scenes an admitted influence upon the adolescent Steven Spielberg. Spare a thought, too, for Ricou Browning, who wore the scaly wetsuit throughout the trilogy (other actors essayed the role on land) and had to hold his breath for up to five minutes for each shot, since there wasn't room for an aqualung. Like Arnold's SF debut IT CAME FROM OUTER SPACE (1953), THE CREATURE FROM THE BLACK LAGOON was shot in 3-D; full marks to Carol and her committee for reviving the experience for this year's members.

Arnold was approached during the early 1980's to direct a remake, with AMERICAN WEREWOLF's John Landis producing, but the project reportedly floundered over the script by QUATERMASS creator Nigel Kneale, who quit to work with John Carpenter on HALLOWEEN III: SEASON OF THE WITCH (1983, dir. Tommy Lee Wallance); coincidentally Carpenter's name has been linked with a mooted remake. Arnold himself died last year, aged seventy-five.

NOVACON 23 PRESENTS. . . .
LIVE ON SATURDAY
BAD INFLUENCE

Bad Influence are a four piece combo that came into existence when a mutual acquaintance suggested they get together. Instantly gelling into a unit, the four progressed from the rock based standards onto other projects, primarily into rhythm and blues but experimenting with other musical styles. For live performances a Rock/R & B formula produces very dancable mix for audiences. The old standards still generate lively response. They combine classic rock n' roll from Chuck Berry, Little Richard et al with R&B from Wilson Pickett, Otis Rush up to moderns like Johnny Winter; interspersed with 60's classics from The Beatles, stones, Kinks, Spencer Davis up to recent songs by Dire Straits and REM. If you like music, you'll love it. Come and dance/jive or just listen on Saturday night from 10.30.

The four are :-

BRETT - Has played guitar from a young age, brought up on the classic rock songs and discovering the 'better' guitarists (Hendrix, Clapton). Can play ANYTHING (as long as he's heard it). Known locally from previous bands and oft called in for session work. Apart from guitar, plays some piano, sings and plays harmonica. Does a lot of recording both studio and at home.

TONY - He has been playing for a number of years on and off, both rock and other styles. Involved in his own band, STRANGER for some years playing original material. Now getting back to his roots and enjoying a new lease of life in Bad Influence singing and playing R&B.

IAN - The archetypical bass player, always there and reliable, doesn't move about much on stage, quiet. However has a wicked sense of humour. He has played in a number of bands, notably THE CULTIVATORS who played original material and became something of a cult in the Black Country as a rock/dance band and JINX, before joining Bad Influence.

GRAHAM - Classically taught on piano, but moved onto drums to both play in bands and because pianos are too heavy to cart about. Got a 'name' during his University days with STILL LIFE and when he moved on joined Tony in STRANGER. Work forced him to move south, but on returning became active doing session work in local studios. Back to live work with this band and adding vocals to his solid drum work.

WHAT'S HAPPENING IN SCIENCE FICTION TODAY?

Find out in the BSFA.

The British Science Fiction Association keeps you up to date with everything that's going on in the world of SF.

It gives you news of what books are coming up – and reviews of what books are just out.

It features in-depth articles on every aspect of SF – and fascinating interviews with the world's leading writers.

It provides up-to-the-minute coverage of magazines and films, conventions and fanzines.

In fact, it's the one place to turn to find out out where SF is today – and where it's going to be tomorrow.

The BSFA gives you 6 issues of the critical journal **Vector**, 6 issues of the news magazine **Matrix** and 3 issues of the writers' magazine **Focus** every year **FOR ONLY £15**

THE BRITISH SCIENCE FICTION ASSOCIATION

Find out more about SF today. Return the coupon to **BSFA Membership Secretary, 27 Albemarle Drive, Grove, Wantage, Oxon OX12 0BN**

YES I want to know more about the British Science Fiction Association. Please send me membership information.

NAME (Mr/Mrs/Ms/Miss) _____

ADDRESS _____

_____

_____ POSTCODE _____

THE SCIENCE FICTION FOUNDATION
... and not forgetting the Friends of Foundation

Roger Robinson

The idea of a Science Fiction Foundation was formulated in 1970, with the stated aims of being a "central office of information" about SF, and of improving the public perception of SF. The main enthusiast involved was George Hay - a long time reader, some-time writer and striver after seemingly impossible dreams. This time he hit jackpot and was able to persuade the North-East London Polytechnic in Barking to make space for a library, and to appoint a part-timer to assist with the administration.

The first Council was set up in 1971 and they, and their successors, have been in charge ever since. One of their first tasks was to formulate and publish the Aims of the Foundation. These aims remain unchanged to this day and are:-

1. To promote a discriminating understanding of the nature of science fiction to the public at large, and especially to the media: in short, to publicise it.

2. To disseminate information about science fiction.

3. To provide research facilities for anyone wishing to study science fiction.

4. To investigate the usefulness of science fiction in education.

The Foundation at Barking continued to thrive, while it was supported by the Poly, with various well-known people being involved either part or full time - Peter Nicholls, Malcolm Edwards, Charles Barren, Colin Lester, David Pringle, Colin Greenland and quite a few others. In 1972 the academic Journal "Foundation : The Review of Science Fiction" was launched with Charles Barren as editor, and continues to this day (issue 59 due November 1993) to be widely read throughout the world. The current subscription list has, very approximately, one third British readers, one third American and one third other nationalities.

This was all very well 'til gradually the Poly trimmed back on its (financial) involvement, until they were merely paying for a part-time secretary to look after the mail and answer the 'phones. If the Poly thought that they were putting the squeeze on to Foundation, they had reckoned without the part-timer they appointed. Joyce Day, originally appointed for 6 weeks to hold the fort, eventually retired when the Foundation moved to Liverpool almost 15 years later, having almost single-handedly kept the Foundation going for many years.

The Council has over the years been drawn both from the Poly and from the SF community at large. About five or six years ago some of the "SF" members, notably John Clute, realised that the Foundation was going nowhere, and set out to gradually get more active SF writer and fans onto the Council, Neil Gaiman, Mary Gentle, Maureen Speller, and others were recruited and

under the continuing chairmanship of Professor John Radford the spark of life was rekindled. At about the same time Rob Hansen held a party in his house at which the conversation, and the drinks, flowed. Sometime during the party the discussion turned to Foundation, and its lack of drive and publicity. The upshot of this was the formation of the Friends of Foundation - a rag-bag assortment of fans who were keen to see the library expanded and the aims of Foundation, especially in regard to publicity, more fully carried out.

The Friends made a start at publicity, and put out a general call for additions to the library. A major portion of the library was the old BSFA lending library which was incorporated into Foundation in 1972. As we added more books to the library it became obvious that the lack of any proper funding from about 1980 had left large gaps in the library, especially in books from the 80s & 90s. As Friends started to try to acquire these and build up the library the Polytechnic dropped what they must have thought was a bombshell. They wanted us out, or at least to pay what they considered a reasonable rent for space, and the use of Joyce's time. However Friends has anticipated this possibility and hence were not caught unawares - we even surprised the Poly in our positive response to the eviction order. This forced change of location coincided with the appointment of a new Poly librarian and the announcement of the new status of the Poly as the University of East London - and we only had 15 month to find a new home, and move about 25,0000 books, magazines and general papers.

We seriously considered renting a house, moving the library and running Foundation ourselves. However, this was a last resort , and VERY fortunately Liverpool University came to the rescue. In a bid sponsored jointly by the English & Philosophy departments and the Chief Librarian, they offered to house the library and, most importantly, appoint and pay the salary of a full time Librarian/Administrator - the post that had been sadly lacking in Barking since 1980.

As some of you will already know Andy Sawyer was appointed Administrator, and started work in the rehoused Science Fiction Foundation in August this year. We all wish him well. Meanwhile the Friends can revert to their original aims, with fund-raising and the filling of gaps in the library as prominent tasks. The last meeting of the Foundation Council in Barking appointed the Friends as their successor body until such time as the Friends became a registered charity and the trustees of that charity became legal owners of the Science Fiction Foundation.

And so the work continues . . . no reasonable offer of help, or any offer of money, refused . . .

Useful addresses -

Andy Sawyer, Science Fiction Foundation, University of Liverpool, P O Box 123, Liverpool L69
Friends of Foundation, c/o 75 Hecham Close Walthamstow, London E17 5QT
Foundation Journal, c/o New Worlds, 71-72 Charing Cross Road, London WC2H 0AA

The following articles are highly edited extracts from The Collapse of Chaos by Jack Cohen and Ian Stewart, to be published in March 1994 by Viking and Penguin.

HOW NOT TO BUILD A DINOSAUR
Jack Cohen

In *Jurassic Park* a genetic engineering company brings the dinosaurs back to life by sequencing their DNA, preserved in blood sucked by biting insects that subsequently became trapped in amber. Wouldn't it be great to do just that?

Until recently the most ancient DNA that had been sequenced was from a 5500 year old human bone. In 1992 a team sequenced termite DNA that was thirty-two million years old, and independently another team sequenced bee DNA of the same age. By the middle of 1993 researchers from California Polytechnic State University had published the record out to 120 million years - well before the last days of the dinosaurs - by sequencing DNA from an insect known as a nemonychid weevil. Everybody used *Jurassic Park*'s amber method, though applied to the DNA of the insects, not the animals they bit.

Living organisms are often described as if they are simply the spatial realisation of a DNA code, just as a jumbo jet is a spatial realisation of engineering blueprints. This gives the impression that an organism's DNA contains - at least in principle - *everything* that you need to build it. Suppose scientists could somehow lay hands on a complete perfectly-preserved dinosaur genome, its entire DNA code. *Could* they then build a dinosaur?

Each age interprets its universe in terms of what is currently important to it. When ancient animistic people wanted to make sense of the starry sky they saw it as a zoo of people and animals - the Hunter, the Swan, the Lion, the Dog. Our present Computer Age sees the universe as an ever-changing flow of information, and if we were to discover the stars today our first instinct would be to try to decode their message. So when, in the Computer Age, Crick and Watson stumbled across the double helix and its aperiodic sequence of bases, it was inevitable that DNA would be seen as a 'program' or 'code' that contained the 'genetic information' needed to make you and me. Just as we can look at a knitting-pattern and see which part of it governs the design of the neckline or the armhole, we imagine that if only we were clever enough we could look at the DNA-pattern and see which part of it governs the design of a neck or an arm.

Or a dinosaur.

This is the picture of DNA as the Book of Life. You can imagine thumbing the pages of the genetic handbook, looking for the Sentence that produces haemoglobin, the Paragraph that produces a blood cell, the Chapter that produces an artery - even the Appendix that produces an appendix. It is the world-view of Tom Easton's 'gengineer' stories, in which you can tear out the pouch-page from the Book of the Kangaroo and glue it into the Book of the Albatross to get Air Mail. The Book of Life image is often explicit in the sales-pitch for

the self-proclaimed Great Project of sequencing the human genome.

Or inhuman ones...

NEEPLPHUT (AN ALIEN FROM THE PLANET ZARATHUSTRA): Great news, Captain! One of the greatest projects yet contemplated by Zarathustrankind is complete! Look!
[Drops optical disk on table.]
ARTHUR (CAPTAIN OF THE *THIGHBONE*, WHICH HAS MADE AN EMERGENCY LANDING): Thank you, Neeplphut. Stanley : let's take a look at this wonderful secret.
STANLEY: Aye-aye, Captain. *[Inserts disk into slot.]*
CAPTAIN ARTHUR: What does it say?
STANLEY: ZZZZZZZZZZZZ.
CAPTAIN ARTHUR: Wake up, man!
STANLEY: No, it says 'ZZZZZZZZZZZZ' on the screen. It goes on like that for ages.
NEEPLPHUT: You must have hit some junk.ZNA. Try somewhere else.
STANLEY: ZZSWSWTXSSTXSWZZ.
CAPTAIN ARTHUR: Sounds like a walrus gargling. Neeplphut, what *is* it?
NEEPLPHUT: Our scientists have succeeded in sequencing the Zarathustran zenome! After octs of labor we have finally produced a complete sequence of the entire ZNA of a Zarathustran. A treasury of zenetic information, our evolutionary heritage. With it, we shall be able to cure new diseases.
STANLEY: That's great!
NEEPLPHUT: Yes. Of course, we will have to invent the new diseases first, and the Regulations may raise objections. It usually does. But do you/do you not (delete whichever is inapplicable) agree that it is an unprecedented triumph?
STANLEY: Wait a minute, didn't *we...?*
CAPTAIN ARTHUR: Yes, we did. Back at the start of the twenty-first century, I think...
STANLEY: There's a disk somewhere. Our own DNA, completely sequenced. I'm sure it's knocking around somewhere. Last time I saw it it was in the box along with last year's sports results...
[rummages] Got it!
NEEPLPHUT: You do not treat such an important discovery with much respect.

Why not?

Other things than DNA also pass from parent to offspring, things that we don't think of as *coding* anything - so we don't think of them as conveying information. For example, in most sexual animals the egg begins development without involving the embryo's own genes, and only when the embryo's ground plan is sufficiently well developed do its own genes take control. Mammals take the whole process much further: they invest far more in the mother, thereby simplifying what has to be put into the embryo's DNA. A large part of frog

DNA deals with alternative enzyme pathways for different temperature levels. In contrast, in a mammal the uterine temperature is kept constant by the mother's own regulatory system; so mammals don't need to put that kind of information into their DNA. This is why mammals DNA contains fewer bases than amphibian DNA while managing to produce animals that are manifestly more complex. We might speculate about a future super-mammal that puts the 'extra' DNA to good use...

To be sure, dinosaur eggs develop *outside* Mum - but mum's biology is heavily involved in getting them started. Nature makes baby dinosaur DNA from dinosaur DNA *plus* Mummy dinosaur, not from dinosaur DNA alone. Can suitable technology make Mum redundant?

HOW TO BUILD A UNIVERSE
Ian Stewart

Are there large-scale patterns to evolution?

How large-scale?

The evolution of organisms can be seen as a kind of dynamic, generated by random mutations but given a direction by natural selection, on *creature-space*. This mathematical fiction contains not just all the creatures there are, but all those that might have been as well. The evolution of ecologies, correspondingly, takes place in eco-space - the space of all ecosystems that exist and might have existed. The evolutionary dynamic in eco-space provides it with its own kind of 'geography', which the evolving system explores.

Eco-space contains far more than those species that exist or ever have existed. The particular track through eco-space that our own planet has followed explored various territories - the blue-green algae, the soft-bodied animals of the Burgess shale, insects, fishes, dinosaurs, mammals, birds... At various stages along the way, the space of possible ecosystems itself expanded. Oxygen-breathing creatures could not exist, not even in principle, until bacteria swamped the atmosphere with oxygen, but from that moment on, the whole evolutionary game was irrevocably different. The development of wings introduced a metaphorical new dimension - parallelled by a literal new dimension in the geographical space that organisms inhabited: the vertical one. What else lurks unexplored in eco-space?

It's a question for imagination rather than observation or experiment, the kind of scientifically consistent thought-experiment that characterises 'hard' science fiction. Here's one example. Suppose that on Earth flight had first been invented by creatures that evolved tiny sacs filled with hydrogen gas, and not by the development of wings. These creatures could, for instance, have produced hydrogen from water or methane by enzyme action, or even electrochemistry. They would have taken to the air, at first borne randomly on the breeze, but gradually evolving more sophisticated controls that would at least let them decide when to descend to the ground again. With no competition up there - to

begin with - they would thrive, just as the winged creatures did along *our* evolutionary track. Then the universal story of parasites and predators would unfold, all carried out using balloonists. Some balloonists might develop the trick of expelling their hydrogen in a stream, igniting it, and directing it at unsuspecting prey. ***Here be dragons !*** As the prey fell to the ground, the dragon would fall with it, its hydrogen having been expelled. Back on the ground it would consume the remaining parts of its prey and so recharge its hydrogen batteries. This kind of exploration of Balloon Island would soon lead to a teeming airborne ecology.

The different things going on overhead would lead to all kinds of changes back down on the ground. Instead of cows' behinds swarming with winged flies, they would swarm with balloonist parasites stealing hydrogen from the cows' prodigious output of methane. Instead of the current symbiosis between plants and insects, there might have been one between plants and 'bee-loons', with the plants providing hydrogen 'filling stations' to tempt bee-loons into their pollination forecourts... An intelligent race, evolved from apes, birds, or something totally absent from our evolutionary track would have learned to tame the great blimps. Air travel would be commonplace, and not a horse-drawn buggy to be seen...

You get the idea. If you want to have fun, rethink it all on Jupiter.

Ecosystems are big and complex dynamic structures. But we can think bigger. Phrases such as 'the global ecosystem' encourage us to think of the entire planet as a single *thing*. And that encourages us to come up with new images of global changes. *The dinosaurs were wiped out by a meteorite. Mother Earth was disappointed to lose the great creatures, so she set about developing a spacefaring ape, capable of defending her from meteorites...* It's a heartwarming tale, but does it really make sense to say that the Earth *wants* something for its creatures? Does it make sense to talk of a planet as if it were a single vast organism? To discuss its health? To invent a new science - planetary medicine?

In 1982 James Lovelock did just these things when he invented the concept of Gaia, Earth-as-organism. He started from the idea that evolution is not a matter of nature versus nurture, or a mixture of the two, but an integrated, interactive process in which both are intimately related. Lovelock's answer to the question 'where does evolution happen?' is that it happens to the entire planetary ecosystem. In much the same way that our bodies are the result of a process of evolutionary interaction between our cells, our food, our ancestry, and our culture, so the planet's ecosystem is the result of interaction between animals, plants, and environmental factors such as weather and geology. Taking this image to its logical conclusion, Lovelock was led to a concept that he names 'Gaia', after the ancient Earth goddess: the planetary ecology as a single living creature, a super-organism.

Gaia is a big concept, but she pales into insignificance in comparison to a theory recently announced by the physicist Lee Smolin: an evolutionary principle for *universes*. Current cosmology provides some general rules for the behaviour of universes, but various arbitrary choices must be made before the rules can be applied. These include the values of fundamental constants, such as the

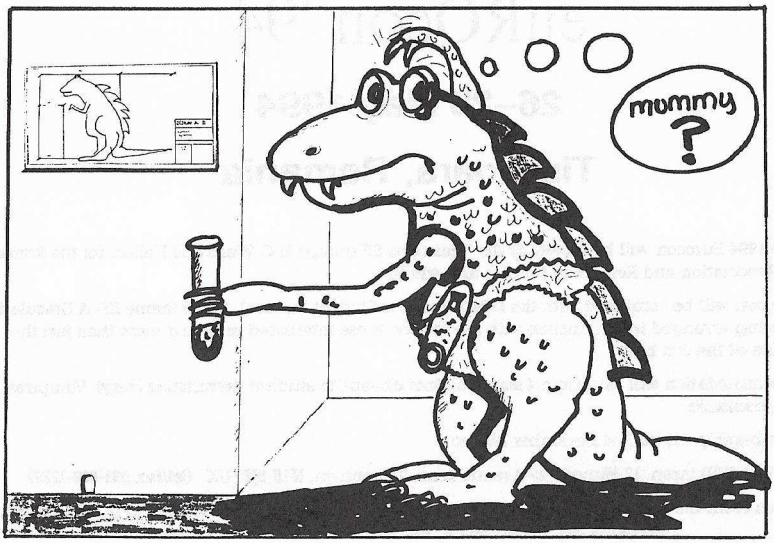
speed of light or Planck's constant. No existing physical theory explains why these constants take the values they do: instead, the constants are built in. The same rules that cosmologists believe govern our own universe can be applied, unchanged, to a hypothetical universe in which the speed of light is six hundred miles per hour. (Sounds familiar, Terry?)

Black holes occur when a sufficiently large mass starts to contract under its own gravitational attraction. An 'event horizon' forms, and nothing that happens beyond the event horizon can be detected from the outside. Effectively, a separate mini-universe is 'pinched off' from ours.

From the point of view of efficient black hole manufacture, out universe made a brilliant choice of the value for Planck's constant, the speed of light, the charge on an electron, and so on. Smolin's idea is that this is no coincidence. Suppose that whenever a new universe pinches off via a black hole, its fundamental constants change a little, randomly. Universes effectively *reproduce*, with small random mutations. Those that are more successful at reproducing - those that create the most black holes - become far more common than those that do not. The evolutionary process will fine-tune the constants in just the right direction to encourage the formation of black holes.

Smolin's theory has (at least) two defects. First, there's no reason to suppose that the separate universes are competing with each other for resources, so no evolution in the true sense can take place. Second, the theory also fails to explain one further coincidence: why the values of the natural constants that are good for producing black holes are *also* those that are good for making carbon-based life like us.

So maybe we need a more ambitious theory.



WINCON III

29th-31st July, 1994

KING ALFRED'S COLLEGE
WINCHESTER

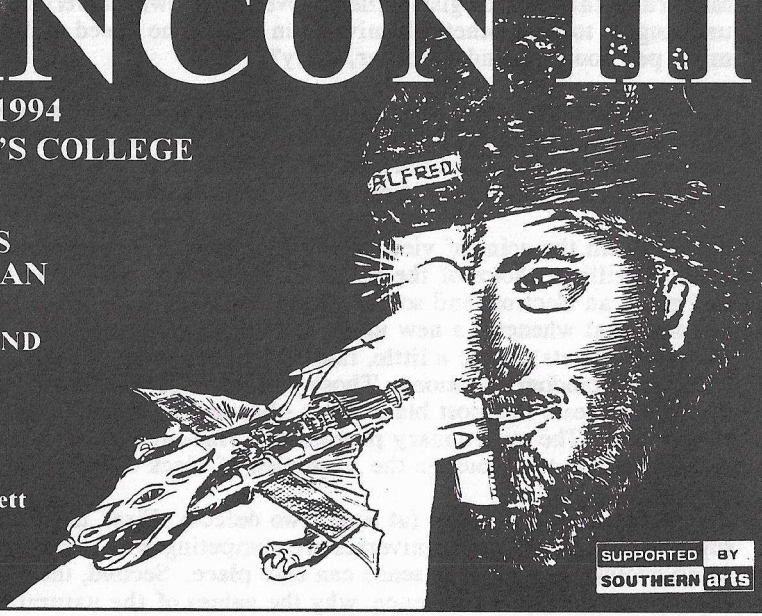
Guests of Honour:
ALGIS BUDRYS
JAMES P. HOGAN

Writers' Workshop:
COLIN GREENLAND

Attending: £20
(£23 after 14/11/93)

Supporting: £13
(£16 after 14/11/93)

Contact: Keith Cosslett
12 Crowsbury Close
Emsworth
Hants PO10 7TS



SCIENCE FICTION • IDEAS IN FOCUS

euROcon '94

26–29 May 1994

Timisoara, Romania

- The 1994 Eurocon will be hosted by the Timisoara SF groups H G Wells and Helion, for the Romanian SF Association and Romanian fandom as a whole.
- The con will be combined with the 1994 Timisoara Student Festival, year's theme SF! A Dracula tour is being arranged in conjunction with the con for those interested in seeing more than just the inside of the con hall.
- Accommodation will vary from 4 star hotel (not cheap), to student dormitories (very). Vampires, cars, etc., bookable.
- Membership £12 'til 31st December 1993, to:

  Bridget Wilkinson, 17 Mimosa, 29 Avenue Road, Tottenham, N15 5JF, UK. (tel/fax 081-802-1739).

Information from the above address or: ARSFan (Romanian SF Association, Str. Paris nr. 1, 1900 Timisoara, Romania (tel. +40-96-136 731; +40-96-144 416; fax: +40-96-119434)

GENERAL CERTIFICATE OF SCIENCE FICTION EDUCATION

Vernon Brown

On the next few pages you will find a GCSE Question Paper. You should also find a loose A4 sized Answer Paper. If you don't have one, please check with Registration.

Most questions in this Quiz require a short answer, but for various reasons this cannot be a written one. So each question has been given several "outline answers" which can be in full or abbreviated. The idea is that you match your answer to one of the "outline" ones. It's a bit like being given specifications for making a key, together with five different locks. If the key is made correctly, it will fit one of the locks, if it is not, it won't. However, to make the instructions simpler, the terms "question" and "answer" are used, although, strictly speaking, these terms are incorrect.

INSTRUCTIONS

1. Each question on the question paper has several answers.

2. Mark the answer that you think is correct. Each correctly answered question is worth one mark. Many answers are given as Acronyms i.e. initial of words (e.g. VB = Vernon Brown). This is because giving answers in full often makes things much too easy.

3. Now choose which answers you will submit for marking. There are three sections - Section B is easy, Section A is medium and Section C has harder questions. You have to submit two Section which must include Section A. If you submit Sections A and B you will obtain a GCSE Ordinary Certificate if you pass, if you submit Section A and C you will gain a GCSE Advanced Certificate if you pass. Pass mark is 40%. Depending on how well you do, you will obtain a Pass or Credit at "O" level, or Pass, Credit or Distinction at "A" level.

4. Having decided which sections to submit, cross out the other one to prevent mistakes.

5. The Answer Paper has numbered and lettered squares corresponding to the questions and answers in your Question Paper. The idea is that you carefully block out with blue or back ink, biro or felt tip the squares corresponding to the answers you think are correct. DO NOT circle or cross the squares or do anything else, or use pencil, as your paper will not be marked if you do. This is because marking will be done by placing a card mark over your Answer Paper with holes cut in it corresponding with correct answer square. Squares that show through are correctly answered. Signs, pencils, etc., are unsuitable for this type of marking. If you make a mistake put a large X through the incorrect square.

6. Now complete your Answer Paper. Block out square corresponding to the sections you have submitted, i.e. A&B or A&C and print your name and address, which we will use as an address label to send you your certificate if you don't collect it on Sunday.

7. Check that all is completed properly and post your Answer paper only in the box at registration. Please only fold it once. Make sure that it is posted by 6.00 pm on NOVACON Saturday.

8. I will have certificates with me on Sunday - please contact me for them and find out whether you have a prize as well.

9. As an incentive, all Answer Papers submitted will be entered in a free prize draw.

10. Finally, no one else will know how well you have done unless you tell them, so please have a go; you may do better than you think.

GCSE QUESTION PAPER
Please read the instructions first

SECTION A

1. What is Jaunting (Bester)?

a) Drug Tripping b) Ghost Hunting c) Stock Market Manipulation d) Riding e) Teleporting

2. Quatermass and the Pit (Film) is also titled

a) Five Million Years BC b) It came from Space c) X the Unknown d) Five Million Years to Earth e) Devils Children

3. What 1950's radio serial is currently (September/October) being repeated on Radio 5?

a) Dan Dare b) Flash Gordon c) Journey into Space d) Space Cadet e) X minus 1

4. Who wrote the novel Jurassic Park?

a) Crichton b) Curtis c) Gerrold d) Nolan e) Thorpe

5. Dan Dare's first space flight in Eagle was to

a) Mercury b) Venus c) The Moon d) Mars e) Jupiter

6. The sequel to Rendezvous with Rama is

a) Kali b) Orphan c) Ramases d) Rama Flight e) Rama II

7 - 12 The items in the following list (a-f) are descriptions of timetravel mechanisms

a) Chair b) Belt c) Lightning d) Sentient Computer e) Jeep/Lorry f) Car

The following questions (7-12) are titles of books or films involving time-travel. Match item letters a-f to the titles for the answers

7. The Technicolour Time Machine

8. The Great Time Machine Hoax

9. The Time Machine

10. Back to the Future

11. The Man Who Folded Himself

12. Lest Darkness Fall

13. Who wrote the book Metropolis?

a) Verne b) Lang c) Thea Von Harbou d) Van Allan e) Burroughs

14. What is the title of the novel from which the film Blade Runner was made (Acronym)?

a) DADOES b) TSLU c) COS d) MRMR e) TMS

15. Which University is about to offer an MA in SF?

a) Aston b) Birmingham c) Liverpool d) Manchester e) Nottingham

16. In Rocheworld what is the Christmas Bush?

a) Alien Vegetable b) Antigravity Device c) Display Board d) Robot e) Spacedrive

17. In Hawke's "Wizard of 4th Street" series civilisation is restored using

a) Atomic Power b) Everlasting batteries c) Necromancy d) Thaumaturgy e) Wizardry

18. Who wrote "Phules Company" (Acronym)?

a) AH b) BA c) BS d) HH e) RA

SECTION B

19. Where does Gunpowder God (HBP) take place?

a) The past b) The Future c) An Alternative World d) Mars e) A Spaceship

20. Who invented the 3 Laws of Robotics (Acronym)?

a) ACC b) IA c) HH d) KL e) RUR

21. Between 1950 and 1970 how many Quatermass films were made?

a) 2 b) 3 c) 4 d) 5 e) 6

22. When did Man first walk on the Moon?

a) 1959 b) 1964 c) 1969 d) 1974 e) None of these

23. Who directed the film Jurassic Park?

a) Badham b) Cameron c) Romero d) Spielberg e) Zemeckis

24. If you took a Quantum Leap in a T.V. Serial where would you go?

a) Into space b) Into the atom c) Into time d) To Mars e) Over buildings

25. A triffid is a/an

a) Ambulatory vegetable b) Flying worm c) Multilobed alien d) Spaceship e) Three fined fish

26. On the Beach (Shute) is about

a) Alien invasion b) A dying hobo c) A mutant d) Natural catastrophe e) Nuclear War aftermath

27. The name of the robot in "The Forbidden Planet" is

a) Bobby b) CAL d) Gort d) Hey You! e) Robby

28. 'The Forbidden Planet' is a film. "Return to the Forbidden Planet" is a/an

a) Book b) Film sequel c) Musical d) Play e) Pop group

29. How many leagues under the sea did J.V. write about?

a) 5,000 b) 10,000 c) 15,000 d) 20,000 e) 30,000

30. When was the film "2001 A Space Odyssey" released?

a) 1957 b) 1968 c) 1969 d) 1974 e) 1976

31. NOVACON has always been organised under the aegis of the BSFG?

a) Always b) Except once c) About half the time d) Never e) None of these

32. Who wrote "The Time Machine" (Acronym)?

a) HRH b) AQ c) RMMK d) JV e) HGW

33. In what was the word Robot first used (Acronym)?

a) MM b) R c) ROTR d) RUR e) TWLM

SECTION C

19. The Chung-Li virus, in a novel by JC, alters what?

a) Birds b) Computers c) Grass d) Intelligence e) Reproduction

20. In "The Guns of the South" (Turtledove) what is the gun that changes history?

a) AK-47 b) Bazooka c) Gatling d) Sten e) Winchester

21. In "Land of Unreason" (Pratt/de Camp) what was the liquid that the convalescing American put out for the Little People resulting in his transportation to Fairyland?

a) Milk b) Vinegar c) Water d) Whisky e) Wine

22. From which story by H. Beam Piper were the "Lord Kalvan" stories derived?

a) In Transit b) Gunpowder God c) Major Upheaval d) Only the Lonely e) When in the Course

23. The Magic Mimeograph has at the handle a/an (Acronym)?

a)A b) BNF c) E d) P e) TF

24. In what story do the adversaries in the "Final War" use a biological virus and a computer virus as main weapons against one another (Acronym)?

a) B b) JD c) TSD d) FS e) WWT

25. The Maison d'Ailleurs is an SF museum in which country?

a) Andorra b) Belgium c) Canada d) France e) Switzerland

26. A Hoka (Anderson/Dickson) is

a) Canoid b) Feloid c) Octopoid d) Reptiloid e) Ursinoid

27. In Red Planet (Heinlein) the two young heroes spend the desert night in a/an

a) Cave b) Cabbage c) Martian dwelling d) Temple e) Tree

28. What is the title of ACC's story about the Star of Bethlehem that destroyed an intelligent race?

a) Behold, my son b) The Light c) Rebirth d) Starbright e) The Star

29. In The Time Machine (Film) how many time travel machines are used by the Time Traveller?

a) 1 b) 2 c) 3 d) 4

30. "Odd John" was written by (Acronym)

a) JH b) MF c) OS d) RK e) SM

31. 'Aelita' is a film set on

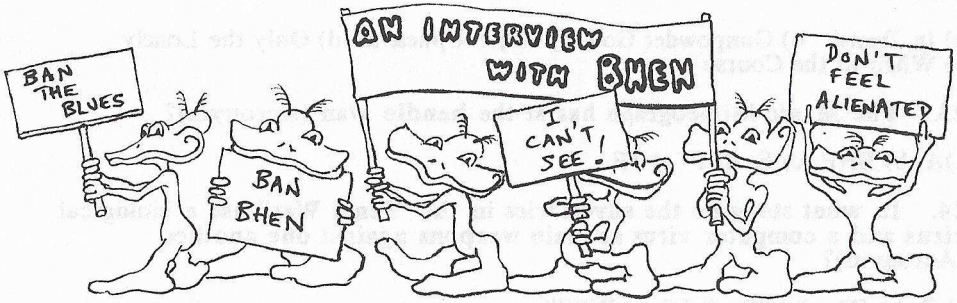
a) Mercury b) Venus c) Earth d) Mars e) The Moon

32. In Pournelle's "Janissaries" books what, or who, is Surinomaz?

a) Clan chief b) Religion c) Food d) Drink e) Drug

33. A syllogismobile is used to travel

a) Between dimensions b) Between planets c) In space d) In time



by the Anonymous Interviewer (henceforth to be known as AI)

AI: Bhen, I hear it is your 20th birthday this year?

B: Well, not really. It's just twenty years since you humans became aware of my existence because David Hardy started portraying some of my exploits, which then appeared on the cover of *The Magazine of Fantasy & Science Fiction*. But as it happens I am 397 of your years old this month.

AI: But I read somewhere (it might have been *Ansible*, or *Critical Wave*) that Dave and his cartoonist friend Anthony Naylor created you out of green plasticene one drunken evening in 1973?

B: Hah! That's a story they cooked up another drunken evening because no-one would believe I really existed, would they? I mean, do you?

AI: Not really. And I'm not even drunk. So how would you describe yourself?

B: As a sort of interplanetary hobo, I suppose; I just drift through the galaxy — I don't need air, of course. But then I found your Solar System, and all those bits of junk you keep sending up. Earth is really funny, and those probes and things kept me amused for ages. Isn't it time you sent up some more? Oh, by the way — I'm sorry I switched off your *Mars Observer*. It was an accident, honest. I promise to leave the Russians' *Mars 94* alone.

AI: You'd better! David A. Hardy has a painting on the CD-ROM that's going on that, along with writings on Mars by H.G.Wells, Arthur C. Clarke, Edgar Rice Burroughs and such, and art by Frank R Paul, Frazetta, Freas, and Bonestell. He's the only living British artist to have work included.

B: Well that's nice of them, I'll enjoy looking at that — but there aren't any Martians, you know. Never were.

AI: It's 'for the benefit of future explorers and colonists'.

B: Oh no! Not more tourists!

AI: You seem to be quite a tourist yourself. Would you like to tell us about some of your better-known stopovers?

B: Oddly enough, the first one to be seen by humans was when I found the *Viking I* lander on Mars. David showed me walking round it with a silly smile on my face while it scrabbled in the sand trying to find signs of life. Well; those so-called cameras went round so slowly that they couldn't even catch me as a green blur!

AI: Carl Sagan seemed to like that one. He bought the original artwork.

B: Yes, and when I sat in the bowl of *Pioneer II* flying past Saturn, the scientists at JPL asked David if they could have a print (not the original, cheapskates!), as it could explain some of the strange results they kept getting back. Little did they know: I didn't realise it at the time, but I was drumming my fingers on the side of the transmitter. They never did

show the first picture they got back. Saturn looked like a Picasso cubist version.

Joy-riding that Lunar Rover at Hadley Base was fun, too. But the guys at the Smithsonian Insitute weren't too pleased — they think all the artifacts left behind on the Moon belong to them. I say 'finders keepers'.

AI: Some people thought that in the picture which shows you watching *Alien* on a TV set plugged into *Intelsat*, your wink means 'Watch out. I'm not as green as I'm cabbage-looking'.

B: Oh, that mother. Talk about an acid tongue! But her dribble's worse than her bite these days — she misses Ripley, you know. They had a thing going off the set, they say. I hear she's just signed a contract with Colgate.

AI: Is your name really Bhen?

B. No, of course not, don't be silly. It's much more sensible: Kktraxxscn'llp'tang. Dave and Tony called me Bhen because I'm a '*ben*evolent BEM' — though *I* don't think I have bug eyes! My three wives and two husbands do sometimes call me a monster, though!

AI: But why the 'h'?

B. I should have thought you'd know that. It isn't done so much these days, but apparently a lot of SF fannish words, like bheer and Ghod (or Ghu) are spelt that way. And when they produce a joint effort, they sign themselves 'DHAN'. which sort of fits.

AI: Of course, your appearance on Earth predates ET by some ten years, but many people still think of you as the archetypal 'little green man'.

B: Oh, that wimp! He's given aliens a bad name. . . Well, I realise you can only see me on a TV screen (I don't care for your atmosphere — too many pollutants, like oxygen), but if you compare my size with some of that NASA hardware, like *Pioneer* or *Mariner 10*, you'll see that I'm about two and a half metres tall. Do you call that 'little', big guy?

AI: Sorry, sorry! Finally, since I'm conducting this interview for the Novacon 23 programme book, how did you like being used as mascot on badges, T-shirts and such for the Brum Group's Fifteencon and Twentycon?

B: Fine by me; except that when I held up that banner saying 'JOIN THE PARTY' it really meant the Green party! (Not yours — ours. Where I come from there are Blues, Purples. . .)

AI: Thank you, and we look forward to seeing where you pop up next.

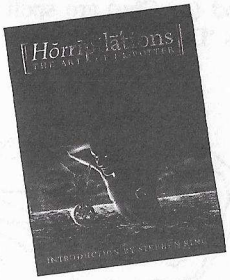
VENTURE INTO FANTASY WORLDS WITH PAPER TIGER

HORRIPILATIONS: THE ART OF J.K. POTTER

INTRODUCTION BY STEPHEN KING

NIGEL SUCKLING

The startlingly original fantasy work of J.K. Potter.
£12.95 Limpback
ISBN 1 85028 255 2
October



21ST CENTURY VISIONS

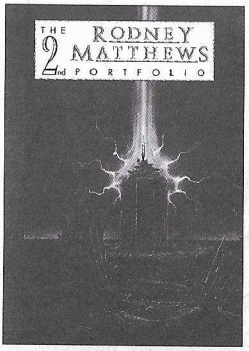
DEREK MEDDINGS AND SAM MITCHELL

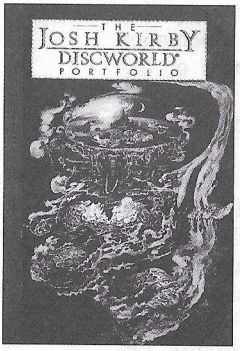
Derek Meddings describes how he achieved his innovative special effects for various popular TV series.
£12.95 Limpback
ISBN 1 85028 243 9

THE 2ND RODNEY MATTHEWS PORTFOLIO

RODNEY MATTHEWS

Spectacular colour plates from the artist's more recent work.
£10.95 Limpback
ISBN 1 85028 250 1
October





THE JOSH KIRBY DISCWORLD® PORTFOLIO

JOSH KIRBY

Features all the artist's acclaimed covers of the popular Discworld books.
£10.95 Limpback
ISBN 1 85028 259 5
October

Available in all good bookshops or direct from

DRAGON'S WORLD
26 WARWICK WAY
LONDON SW1V 1RX

THE NOVA AWARDS

Tony Berry

Originally created in 1973 by the late Gillion Field, the Nova Awards are presented annually for work in fanzines. Until 1981 the award was given to "Best Fanzine" and decided by a committee of famous fans. In 1977 voting was extended to all active fans who were members of Novacon, and then in 1981 two further awards were added: "Best Fanwriter" and "Best Fanartist".

For a fanzine to qualify for the award, one or more issues must have been published between 1st October 1992 and 30th September 1993. For a writer or artist to qualify, they must have at least one piece of work published for the first time between those dates.

A "Fanzine" is defined as an amateur publication which is concerned with SF, fantasy, SF and fantasy fans and related subjects, copies of which may be obtained in exchange for other fanzines or in response for letters of comment. An "Active Fan" is defined as someone who has received 6 or more different fanzines during the year (different publications, not different issues of the same publication. The various publications of a group, society or convention do not count as different publications).

Below is a list of those fanzines which I have received over the last year, and which are eligible for Novas. There may be more which are not on the list, but I never saw them. So ponder them and vote !

ANSIBLE #63-74, Dave Langford
BALLOONS OVER BRISTOL #3, Christina Lake.
BOB? #4-5, Ian Sorenson.
CONRUNNER #18, Ian Sorenson.
THE DOG FACTORY #1, Dave Wood.
DRIVEL & DROOL #1, Mike D. Siddall.
EMPTIES #11, Martin Tudor.
ERG #121-122, Terry Jeeves.
EYEBALLS IN THE SKY #6-7, Tony Berry.
FANS ACROSS THE WORLD #22,, Bridget Wilkinson.
FANZINE FANATIQUE IS 21, Keith & Rosemary Walker.
GAIJIN #2, Steve Green.
HORRORSHOW #2, Eddie Trenchcoat.
IN PROGRESS #1, Abi Frost.
LAGOON #4, Simon Ounsley.
THE LIGHT STUFF #7-8, Rhodri James.
THE OLAF ALTERNATIVE #2-5/OUTHOUSE#6-9, Ken Cheslin.
ORMOLU #1, Ann Green.
RASTUS JOHNSON'S CAKEWALK #1, Greg Pickersgill.
SALIROMANIA #9, Michael Ashley.
SLUBBERDEGULLION #6-7, Nigel E Richardson.
THINGUMYBOB #7-8, Chuck Connor.
VILE ANCHORS #10, Simon Polley.

PAST NOVA WINNERS

YEAR	WINNER	FANZINE
1973	Peter Weston	*Speculation*
1974	Lisa Conesa	*Zimri*
1975	Rob Jackson	*Maya*
1976	Rob Jackson	*Maya*
1977	Dave Langford	*Twll-Ddu*
1978	Alan Dorey	*Gross Encounters*
1979	Simone Walsh	*Seamonsters*
1980	Dave Bridges	*One-off*

YEAR	WINNER/ BEST FANZINE	BEST FAN WRITER	BEST FANARTIST
1981	Malcom Edwards *Taffen*	Chris Atkinson	Pete Lyons
1982	Rob Hansen *Epsilon*	Chris Atkinson	Rob Hansen
1983	Dave Bridges *A Cool Head*	Dave Bridges	Margaret Welbank
1984	Dave Wood *Xyster*	Anne Hamill Warren	D West
1985	John Jarrold *Prevert*	Abi Frost	Ros Calverley
1986	Owen Whiteoak *Pink Fluffy Bedsocks*	Owen Whiteoak	Arthur "Atom" Thompson
1987	Hazel Ashworth *Lip*	D West	D West
1988	Hazel Ashworth *Lip*	Michael Ashley	D West
1989	Jan Orys *VSOP*	Simon Polley	Dave Mooring
1990	Judith Hanna & Joseph Nicholas - *FTT*	Dave Langford	Dave Mooring
1991	Michael Ashley *Saliromania*	Michael Ashley	D West
1992	Ian Sorensen *Bob?*	Michael Ashley	Dave Mooring

THE HISTORY OF NOVACON

NOVACON	VENUE	GUEST OF HONOUR	CHAIR
1 (144)	Imperial Centre	James White	Vernon Brown
COMMITTEE : Ray Bradbury, Alan Denham, Alan Donnelly, Pauline Dungate			
2 (144)	Imperial Centre	Doreen Rogers	Vernon Brown
COMMITTEE : Stan Eling, Jeffrey Hacker, Richard Newnham, Meg Palmer, Hazel Reynolds			
3 (146)	Imperial Centre	Ken Bulmer	Hazel Reynolds
COMMITTEE : Stan Eling, Gillon Field, Meg Palmer, Geoff Winterman			
4 (211)	Imperial Centre	Ken Slater	Dr Jack Cohen
COMMITTEE : Pauline Dungate, Stan Eling, Gillion Field, Robert Hoffman, Arline Peyton, Rog Peyton, Hazel Reynolds			
5 (272)	Royal Angus	Dan Morgan	Rog Peyton
COMMITTEE : Ray Bradbury, Pauline Dungate, Robert Hoffman, Laurence Miller, Arline Peyton			
6 (317)	Royal Angus	David Kyle	Stan Eling
COMMITTEE : Helen Eling, Laurence Miller, Arline Peyton, Rog Peyton			
7 (278)	Royal Angus	John Brunner	Stan Eling
COMMITTEE : Liese Hoare, Martin Hoare, Ian Maule, Janice Maule, Dave Langford			
8 (309)	Holiday Inn	Anne McCaffrey	Laurence Miller
COMMITTEE : Dave Holmes, Kathy Holmes, Chris Walton, Jackie Wright			
9 (290)	Royal Angus	Christopher Priest	Rog Peyton
COMMITTEE : Helen Eling, Stan Eling, Chris Morgan, Pauline Morgan, Paul Oldroyd			
10 (495)	Royal Angus	Brian W Aldiss	Rog Peyton
COMMITTEE : Joseph Nicholas, Keith Oborn, Krystyna Oborn, Paul Oldroyd, Chris Walton			
11 (362)	Royal Angus	Bob Shaw	Paul Oldroyd
COMMITTEE : Helen Eling, Stan Eling, Joseph Nicholas, Phil Probert,			
12 (373)	Royal Angus	Harry Harrison	Rog Peyton
COMMITTEE : Chris Baker, Dave Hardy, Eunice Pearson, Phil Probert			
13 (339)	Royal Angus	Lisa Tuttle	Phil Probert
COMMITTEE : Chris Donaldson, Steve Green, Dave Haden, Jan Huxley, Paul Oldroyd, Eunice Pearson, Paul Vincent, John Wilkes			
14 (333)	Grand	Rob Holdstock	Steve Green
COMMITTEE : Kevin Clarke, Ann Green, Dave Haden, Eunice Pearson, Phil Probert, Martin Tudor, Paul Vincent			
15 (340)	De Vere Coventry	James White Dave Langford	Phil Probert
COMITTEE : Tony Berry, Carol Pearson, Eunice Pearson, Graham Poole, Martin Tudor			

NOVACON	VENUE	GUEST OF HONOUR	CHAIR
16 (257)	De Vere Coventry	E C Tubb Chris Evans	Tony Berry

COMMITTEE : Nick Mills, Darroll Pardoe, Rosemary Pardoe, Graham Poole, Maureen Porter,

17 (352) Royal Angus Iain Banks Bernie Evans
COMMITTEE : Mick Evans, Dave Hardy, Graham Poole, Stephen Rogers, Geoff Williams

18 (411) Royal Angus Garry Kilworth Tony Berry
COMMITTEE : Bernie Evans, Rog Peyton, Greg Pickersgill, Linda Pickersgill, Martin Tudor

19 (426) The Excelsior Geoff Ryman Martin Tudor
COMMITTEE : Tony Berry, Helena Bowles, Bernie Evans, Nick Mills, Pam Wells

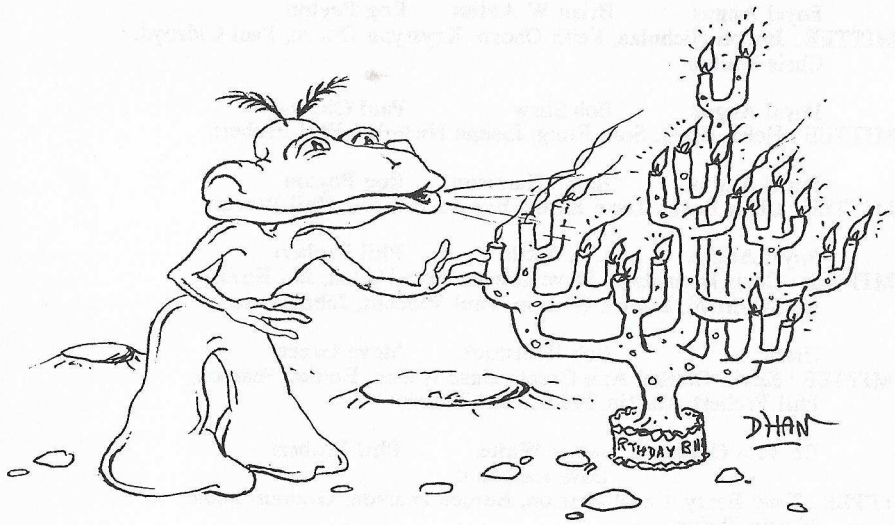
20 (330) The Excelsior Dr Jack Cohen Bernie Evans
COMMITTEE : Al Johnston, Alice Lawson, Steve Lawson, Nick Mills, Richard Standage

21 (200) Forte Post House Colin Greenland Nick Mills
COMMITTEE : David T Cooper, Bernie Evans, Al Johnston, Alice Lawson, Steve Lawson, Chris Murphy

22 (300) Royal Angus Storm Constantine Helena Bowles
COMMITTEE : Bernie Evans, Tony Berry, Jenny Glover, Steve Glover, Carol Morton, Richard Standage

23 (350) Royal Angus Stephen Baxter Carol Morton
COMMITTEE : Helena Bowles, Bernie Evans, Tony Morton, Richard Standage

(Note: The figures in brackets next to the number of that year's Novacon, indicates the number of attendees for that convention)



CRITICAL WAVE

THE EUROPEAN SCIENCE FICTION & FANTASY REVIEW

"CRITICAL WAVE is the most consistently interesting and intelligent review on the sf scene." - Michael Moorcock.

"One of the best of the business journals... I never miss a copy..." - Bruce Sterling.

"Intelligent and informative, one of my key sources of news, reviews and comments." - Stephen Baxter.

"I don't feel informed until I've read it." - Ramsey Campbell.

CRITICAL WAVE is published six times per year and has established a reputation for hard-hitting news coverage, perceptive essays on the state of the genre and incisive reviews of the latest books, comics & movies. Regular features include publishing news, portfolios by Europe's leading sf & fantasy artists, extensive club, comic mart & convention listings, interviews with prominent authors & editors, fiction market reports, fanzine & magazine reviews & convention reports.

Previous contributors have included: STEPHEN BAXTER, MICHAEL MOORCOCK, IAIN BANKS, CLIVE BARKER, LISA TUTTLE, BOB SHAW, COLIN GREENLAND, DAVID LANGFORD, ROBERT HOLDSTOCK, GARRY KILWORTH, SHAUN HUTSON, DAVID WINGROVE, TERRY PRATCHETT, RAMSEY CAMPBELL, LARRY NIVEN, BRIAN W ALDISS, ANNE GAY, RAYMOND FEIST, CHRIS CLAREMONT, MARK MORRIS and STORM CONSTANTINE.

A six issue subscription costs only £8.50 (£7.99 by Standing Order) or a sample copy £1.95; these rates only apply to the UK, overseas readers should contact the address below for further details. Cheques or postal orders should be made payable to "Critical Wave Publications" and sent to: Martin Tudor, 845 Alum Rock Road, Birmingham, B8 2AG. Please allow 30 days for delivery.

MEMBERSHIP LIST

064	Mike Abbott
219	Andrew Adams
081	Kay Allan
141	Paul Allwood
061	Brian Ameringen
062	Margaret Austin
201	Chris Baker
202	Rachel Baker
119	Iain Banks
208	John Bark
130	Jim Barker
207	David V Barrett
001	Stephen Baxter
027	Chris Bell
116	Sam Bennett
174	Tony Berry
120	B A Blackburn
222	Paul Blair
167	Rik Blakey
105	Duncan Booth
106	Judy Booth
005	Helena Bowles
033	Ray Bradbury
177	Simon Bradshaw
200	Steve Brewster
178	Claire Brialey
056	Tim Broadribb
195	Ian Brooks
029	Pat Brown
030	Vernon Brown
238	Avedon Carol
169	Catie Cary
157	Alan Cash
147	Ken Cheslin
126	A Vinc Clarke
240	Norman Clinton
216	Elaine Coates
122	Jack Cohen
179	Noel Collyer
109	Chuck Connor
041	Alison Cook
037	David T Cooper
165	Philip Cooper
193	Keith Cosslett
234	Geoff Cowie
117	Dave Cox
011	Pat Curzon
086	Brian Davies
112	Malcolm Davies
045	Steve Davies
226	Peter Day
155	Robert Day
046	Giulia De Cesare
010	Sarah Dibb
018	Paul Dormer
229	Tara Dowling-Hussey
094	Peter Dunn
063	Martin Easterbrook
053	Lynn Edwards
054	Paul Edwards
028	Arthur George Eele-Cruttenden
031	Helen Eling
032	Stan Eling
024	Dave Ellis
158	Les Escott
004	Bernie Evans
118	Mick Evans
017	Nic Farey
227	Judith Faul
034	Mike Ford
066	Susan Francis
051	Dave French
052	Shirley French
235	Abi Frost
210	Gwen Funnell
160	Eric Furey
161	Maggie Furey
149	Keren Gilfoyle
154	Suzanne Godsalve
049	Niall M Gordon
132	Helen Gould
133	Mike Gould
074	Ann Green
191	Carol Ann Green
073	Steve Green
097	Steve Grover
138	Roger Hall
166	Stephen Hall
239	Rob Hansen
088	Dave Hardy
038	John Harold
071	Sue Harrison
142	Eve Harvey
143	John Harvey
015	Julian Headlong
192	Richard Hewison
187	Catherine Hill

194 Rob Holdstock
059 Dave Holladay
172 Valerie R Housden
096 Rhodri James
093 Richard James
237 Phil Janes
243 John Jarrold
199 Stephen Johnson
164 Al Johnston
025 Steve Jones
212 Sue Jones
232 Graham Joyce
196 Barbara Kershaw
090 Paul Kincaid
055 Linda Krawecke
182 Christina Lake
050 Dave Lally
127 Colin Langeveld
228 Dave Langford
067 Alice Lawson
068 Steve Lawson
092 Ethel Lindsay
S 1 Dee Ann Lipscomb
110 Mike Llewellyn
048 Peter Mabey
181 Sue Mason
123 Jean Maudsley
203 Kari Maund
128 Catherine McAulay
089 William McCabe
233 Martin McCallion
175 Dathi McGroarts
220 Lorna McLaren
144 Helen McNabb
176 Jackie McRobert
170 John Meaney
171 Yvonne Meaney
103 Sally-Ann Melia
014 Rod Milner
039 Neale Mittenshaw-Hodge
009 Dave Mooring
079 Chris Morgan
080 Pauline Morgan
098 Tim Morley
003 Carol Morton
006 Tony Morton
214 Steve Mowbray
060 Caroline Mullan
095 Chris Murphy
204 Phil Nanson
224 Cherry Newton
225 Henry Newton
198 Zy Nicholson
184 Lisanne Norman
139 Nosferatu
145 Brian Noyes
042 Chris O'Shea
209 Simon Ounsley
206 Alan Payne
013 Rog Peyton
129 Greg Pickersgill
107 Marion Pitman
173 Phil Plumbly
218 Mark Plummer
076 Lorna Poland
075 Mickey Poland
115 Sherrie Powell
057 Richard Rampant
168 Nev Rawlins
043 Malcolm Reid
140 Renegade
016 Mark Reynolds
223 John Richards
108 John D Rickett
156 Julie F Rigby
023 Roger Robinson
213 Nigel Robson
180 Doreen Rogers
070 Phil Rogers
084 Tony Rogers
065 Marcus L Rowland
136 John Edmund Rupik
188 Tim Salter
241 Lena Sarah
205 Andrew Saxby
124 Alison Scott
125 Mike Scott
146 Bob Shaw (fake)
131 Bob Shaw (real)
150 Moira Shearman
002 Sandra Shepherd
069 D M Sherwood
021 Ina Shorrock
022 Norman Shorrock
104 Mike Siddall
185 Joyce Slater
186 Ken F Slater
217 Mark Slater
114 Martin Smith
236 Robert Sneddon
072 Adrian Snowdon
113 Kate Solomon
102 Ian Sorensen
091 Maureen Speller

007	Richard Standage	211	Peter Wareham
047	Tim Stannard	111	Freda Warrington
099	Helen Steele	189	Ashley Watkins
082	Andrew Stephenson	231	Jaine Weddell
121	Ian Nicholas Stewart	085	Pam Wells
026	Chris Stocks	012	Kathy Westhead
020	Mike Stone	019	Mike Westhead
040	Brian Stovold	044	Alison Weston
151	Neil Summerfield	078	Eileen Weston
215	Lesley Swan	077	Peter Weston
162	David Symes	242	Susan Weston
163	Fay Symes	221	Andrew J Wilson
035	Dave Thomas	190	Anne Wilson
183	Peter-Fred Thompson	159	Dave Wood
152	Alison Tomkinson	100	Alan Woodford
153	Neil Tomkinson	101	Anne Woodford
230	Barry Traish	008	Andy Wright
036	Martin Tudor	058	Kati Wright
083	Larry Van Der Putte	197	Pete Wright
137	Dai Walters	134	Jonathan Wylie (1)
148	Huw Walters	135	Jonathan Wylie (2)
087	Lesley Ward		

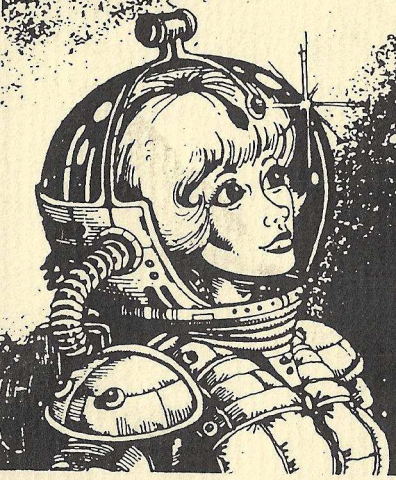
ACKNOWLEDGEMENTS

We would like to thank the following for their contributions :-

Iain Byers for the brilliant cover art
Steve Green for film notes and general good advice
Richard Standage for the committee biographies
Al Johnson for his article
Stephen Baxter's Desk Editor
Roger Robinson for the RNIB and SFFFOF articles
Jack Cohen and Ian Stewart for their article
Jim Petrie for the cartoon art on page 39
Tony Berry for the Nova pieces
Dave Hardy for the item on Bhen, the excellent cover of the 'special' - and the cartoons on pages 26, 52 and 56.

ANDROMEDA
BOOKSHOP

TERRY PRATCHETT AND JOSH KIRBY WILL BE SIGNING THEIR NEW BOOKS AT THE SHOP AT 10.30AM SATURDAY 6 NOVEMBER



SCIENCE FICTION · FANTASY · HORROR

84 SUFFOLK STREET, BIRMINGHAM, B1 1TA
Tel: 021-643 1999 Fax: 021-643 2001